Table K-2: SGA, G&A and Multiplier Items					
Item No.	**Cost Categories**	**Charges for Time and Expenses Related to the Work Recoverable by Inclusion in Multipliers or SGA or G&A (Yes/No)**			
		WEC HQ Assigned	**WEC Site Assigned**	**S&W HQ Assigned**	**S&W Site Assigned**
1.	Holiday, vacation, and non-billable Time	No – In Labor Rate	No – In Labor Rate	Yes	Yes
2.	Any and all payroll taxes and charges required to be paid by any local, state or federal government; state and federal unemployment taxes for professional labor (non-craft)	No – In Labor Rate	No – In Labor Rate	Yes	Yes
3.	Benefits, salary premiums for professional labor (non-craft)	No – In Labor Rate	No – In Labor Rate	Yes	Yes
4.	Corporate Officers and Directors (except where indicated as directly billable herein) and corporate incentives / bonuses	Yes	Yes	Yes	Yes
5.	Corporate supply chain and quality assurance management (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
6.	Corporate financial and accounting controls & reporting (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
7.	Corporate human resources staff and support (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
8.	Corporate information technology staff, services and equipment (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
9.	Corporate legal (internal and external) and contracts development (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
10.	Corporate insurance personnel not assigned to the Work (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
11.	Corporate administrative personnel	Yes	Yes	Yes	Yes
12.	Corporate construction management (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
13.	Corporate facilities & management	Yes	Yes	Yes	Yes
14.	Business development, marketing & communications	Yes	Yes	Yes	Yes

Table K-2: SGA, G&A and Multiplier Items					
Item No.	**Cost Categories**	**Charges for Time and Expenses Related to the Work Recoverable by Inclusion in Multipliers or SGA or G&A (Yes/No)**			
		WEC HQ Assigned	**WEC Site Assigned**	**S&W HQ Assigned**	**S&W Site Assigned**
15.	Corporate environmental, health and safety	Yes	Yes	Yes	Yes
16.	Corporate information technology (except where indicated as directly billable herein)	Yes	Yes	Yes	Yes
17.	Corporate support & management	Yes	Yes	Yes	Yes
18.	Office supplies, consumables, and computers and other equipment	No – In Labor Rate	No	Yes	No
19.	Long distance phone calls, telegrams, facsimiles at Contractor's charges in effect at the time of usage	No – In Labor Rate	No	Yes	No
20.	Secretaries, stenographers, typists, clerks, administrative personnel, etc. providing project support	No – In Labor Rate	No – In Labor Rate	No	No
21.	Relocation of personnel to or between Contractor's headquarters offices other than return from assignment at Owner's site	Yes	No	Yes	No

EXHIBIT L
Net Electric Guarantee Conditions And Load List

Capitalized terms used herein and not otherwise defined herein have the meanings assigned to such terms in the Agreement to which this Exhibit L is appended.

As part of achieving Substantial Completion of a Unit, a Net Unit Electric Output Test shall be performed to determine whether the Unit meets the Net Unit Electrical Output Guarantee. The Net Unit Electrical Output for the Unit shall be determined by the Net Unit Electrical Output Test in accordance with the applicable requirements set forth in Section 11.5 of the Agreement.

The purpose of this Exhibit is to define the Net Unit Electric Output value for the Net Unit Electric Output Guarantee and provide the House Loads for the Unit when defining the Net Unit Electric Output Guarantee. The House Loads list with individual load operation assumptions (on/off) is presented in Attachment A to this Exhibit. (House Loads are those which receive power from the Unit Auxiliary Transformers; that is, supplied from the low voltage side of the Main Step-Up Transformers.)

The tested power will be corrected to guarantee conditions with corrections for power factor, ambient wet bulb temperature, ambient dry bulb temperature, make-up water temperature and make-up water flow rate.

The Net Unit Electric Output of the Unit is:

Plant Condition	Generator Output (kW)	House Loads (kW) Including two octagonal mechanical draft cooling towers per Unit and losses due to the Main Step-Up Transformer	Net Unit Electrical Output Guarantee (kW) Measured at the high voltage side of the Main Step-Up Transformer
Rated Power	1,204,500	103,500	1,101,000

The Net Unit Electrical Output Guarantee is based upon the following conditions:

- Individual house load assumptions (on/off) are as presented in Attachment A.
- Power factor of 0.90 at the generator.
- Cooling tower inlet ambient conditions are 96° F Dry Bulb; Wet Bulb of 76° F
- Wind velocity does not exceed 10 mph, as measured at the upper deck of the cooling towers.
- Cooling tower inlet wet bulb temperature does not vary more than 5°F above or 15°F below the guarantee-basis wet bulb temperature indicated above.

- Cooling tower make-up water temperature is no higher than 88.1° F at this condition. Similarly, at any other cooling tower inlet conditions, the make-up water temperature will be no higher than the cooling tower basin temperature. Since the stipulated make-up temperature is the same as the cold water temperature in the cooling tower basin, it has no effect on the basin temperature, regardless of make-up flow rate. If the temperature is higher than this, the make-up flow rate will be taken into account, along with its temperature, in applying the performance correction factor.
- Cooling tower make-up water shall not contain more than 10 parts per million suspended solids.
- The quantity of oil, grease, or other fatty substances in the circulating water shall not exceed 1 ppm as determined by a mutually agreeable technique. Normal water chemistry will be maintained by means of a normal blow-down rate.
- The steam generator blow-down flow will be zero during the test conditions.

The Net Unit Electrical Output value presented above does not include calorimetric and electrical measurement uncertainties. For the tested load, an uncertainty allowance will be determined in accordance with the procedures and standards identified in ASME PTC 46. That is if, for example, the measurement uncertainty is calculated in accordance with ASME methods to be +/-1%, then the Net Electrical Output Guarantee will be deemed to have been achieved if the corrected value is greater than 99% of the guaranteed value.

Attachment A

HOUSE LOADS EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
2037-AD-D01	ROLL-UP DOOR	Off	Door operation not assumed.
4033-MS-01	HMS DECON SYSTEM (PORTABLE UNITS)	Off	
4033-MZ-01	HMS DRILL PRESS	Off	Machine shop not operated for this study.
4033-MZ-02	HMS BAND SAW	Off	Machine shop not operated for this study.
4033-MZ-03	HMS POWER HACKSAW	Off	Machine shop not operated for this study.
4033-MZ-04	HMS UNIVERSAL GRINDER	Off	Machine shop not operated for this study.
4033-MZ-05	HMS LATHE	Off	Machine shop not operated for this study.
4033-MZ-06	HMS MILLING MACHINE	Off	Machine shop not operated for this study.
ASS-EH-01	AUXILIARY BOILER FUEL OIL ELECTRIC HEATER	Off	Aux boiler not normally used at power. Heater not included in guarantee loads.
ASS-MP-01A	AUXILIARY BOILER MAKEUP PUMP A	Off	Aux boiler not normally used at power, assume aux boiler used at startup
ASS-MP-01B	AUXILIARY BOILER MAKEUP PUMP B	Off	Aux boiler not normally used at power, assume aux boiler used at startup
ASS-MP-04A	AUXILIARY BOILER FEED PUMP A	Off	Aux boiler not normally used at power, assume aux boiler used at startup
ASS-MP-04B	AUXILIARY BOILER FEED PUMP B	Off	Aux boiler not normally used at power, assume aux boiler used at startup
BDS-MP-01	STEAM GENERATOR RECIRCULATION AND DRAIN PUMP	Off	
BDS-MP-02A	EDI BRINE PUMP A	Off	
BDS-MP-02B	EDI BRINE PUMP B	Off	
CAS-MS-01A	INSTRUMENT AIR COMPRESSOR PACKAGE A	On	One of two compressors needed for normal operation
CAS-MS-01B`	INSTRUMENT AIR COMPRESSOR PACKAGE B	Off	One of two compressors needed for normal operation
CAS-MS-03A	SERVICE AIR COMPRESSOR PACKAGE A	On	Assume one of two compressors needed for normal operation
CAS-MS-03B	SERVICE AIR COMPRESSOR PACKAGE B	Off	Assume one of two compressors needed for normal operation
CAS-MS-05	HIGH PRESSURE AIR COMPRESSOR AND FILTER PACKAGE	Off	Assume high pressure air compressor not normally needed
CCS-EH-01A	CCS PUMP HEATER	Off	
CCS-EH-01B	CCS PUMP HEATER	On	
CCS-MP-01A	COMPONENT COOLING WATER PUMP A	On	Only one CCS pump required for at-power operation. Two required for cooldown.
CCS-MP-01B	COMPONENT COOLING WATER PUMP B	Off	Only one CCS pump required for at-power operation. Two required for cooldown.
CCS-PL-V225	Letdown HX Cooling Flow Inlet Isolation	Off	No valve operation assumed for this study
CCS-PL-V256A	RCP 1A Cooling Water Outlet Isolation	Off	No valve operation assumed for this study
CCS-PL-V256B	RCP 1B Cooling Water Outlet Isolation	Off	No valve operation assumed for this study
CCS-PL-V256C	RCP 2A Cooling Water Outlet Isolation	Off	No valve operation assumed for this study
CCS-PL-V256D	RCP 2B Cooling Water Outlet Isolation	Off	No valve operation assumed for this study
CDS-EH-01A	CONDENSATE PUMP A MOTOR HTR	Off	Two of three CDS pumps required for normal operation
CDS-EH-01B	CONDENSATE PUMP B MOTOR HTR	Off	Two of three CDS pumps required for normal operation
CDS-EH-01C	CONDENSATE PUMP C MOTOR HTR	On	Two of three CDS pumps required for normal operation
CDS-MP-01A	CONDENSATE PUMP A	On	Two of three CDS pumps required for normal operation. CDS not required at shutdown.
CDS-MP-01B	CONDENSATE PUMP B	On	Two of three CDS pumps required for normal operation. CDS not required at shutdown.
CDS-MP-01C	CONDENSATE PUMP C	Off	Two of three CDS pumps required for normal operation.

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
CDS-PL-V012	VALVE CDS-PL-V012	Off	No valve operation assumed for this study
CDS-PL-V013	VALVE CDS-PL-V013	Off	No valve operation assumed for this study
CDS-PL-V014	F.W. HEATERS 1&2 BYPASS MOV	Off	No valve operation assumed for this study
CES-EP-01A	CONDENSOR TUBE CLEANING PANEL A	Off	
CES-EP-01B	CONDENSOR TUBE CLEANING PANEL B	Off	
CFS-MP-01	OXYGEN SCAVENGING PUMP 1	Off	
CFS-MP-02	OXYGEN SCAVENGING PUMP 2	Off	
CFS-MP-03	PH CONTROL FEED PUMP 1	Off	
CFS-MP-04	PH CONTROL FEED PUMP 2	Off	
CFS-MP-05	ASS OXYGEN SCAVAGING PUMP	Off	
CFS-MP-06	ASS pH CONTROL FEED PUMP	Off	
CFS-MP-07	ASS BATCH CHEMICAL FEED PUMP	Off	
CFS-MP-08A	SWS DISPERSANT CHEMICAL FEED PUMP A	Off	
CFS-MP-08B	SWS DISPERSANT CHEMICAL FEED PUMP B	Off	
CFS-MP-09A	CWS DISPERSANT CHEMICAL FEED PUMP A	Off	
CFS-MP-09B	CWS DISPERSANT CHEMICAL FEED PUMP B	Off	
CFS-MP-10	DTS SCALE INHIBITOR CHEMICAL FEED PUMP	Off	
CFS-MP-11	CWS & SWS ALGAECIDE CHEMICAL FEED PUMP	Off	
CFS-MP-12A	SWS BIOCIDE CHEMICAL FEED PUMP A	Off	
CFS-MP-12B	SWS BIOCIDE CHEMICAL FEED PUMP B	Off	
CFS-MP-13A	CWS BIOCIDE CHEMICAL FEED PUMP A	Off	
CFS-MP-13B	CWS BIOCIDE CHEMICAL FEED PUMP B	Off	
CFS-MP-14	PWS BIOCIDE CHEMICAL FEED PUMP	Off	
CFS-MP-15A	SWS pH CONTROL CHEMICAL FEED PUMP A	Off	
CFS-MP-15B	SWS pH CONTROL CHEMICAL FEED PUMP B	Off	
CFS-MP-16A	CWS pH CONTROL CHEMICAL FEED PUMP A	Off	
CFS-MP-16B	CWS pH CONTROL CHEMICAL FEED PUMP B	Off	
CFS-MP-17	DTS pH CONTROL CHEMICAL FEED PUMP	Off	
CMS-MK-01A	VACUUM PUMP A	On	
CMS-MK-01B	VACUUM PUMP B	On	
CMS-MK-01C	VACUUM PUMP C	On	
CMS-MK-01D	VACUUM PUMP D	Off	Swing pump not needed when both dedicated pumps operating
CMS-MP-01A	SEAL WATER PUMP A	On	
CMS-MP-01B	SEAL WATER PUMP B	On	
CMS-MP-01C	SEAL WATER PUMP C	On	Swing pump not needed when both dedicated pumps operating
CPS-PL-V001	CPS BYPASS VALVE	Off	No valve operation assumed for this study
CPS-PL-V002	POLISHER VESSEL UPSTREAM ISOLATION VALVE	Off	No valve operation assumed for this study
CPS-PL-V003	POLISHER VESSEL DOWNSTREAM ISOLATION VALVE	Off	No valve operation assumed for this study
CVS-EH-01-A	BORIC ACID TANK IMMERSION HEATER ELEMENT A	Off	

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
CVS-EH-01-B	BORIC ACID TANK IMMERSION HEATER ELEMENT B	Off	
CVS-EH-02	BORIC ACID BATCHING TANK IMMERSION HEATER	Off	Assume no boric acid batching operation.
CVS-MP-01A	MAKE-UP PUMP A	Off	Assume no makeup pumps in operation
CVS-MP-01B	MAKE-UP PUMP B	Off	Assume no makeup pumps in operation
CVS-MY-Y01	BORIC ACID BATCHING TANK MIXER	Off	Assume no boric acid batching operation.
CWS-EH-01A	Circulating Water Pump A Motor Heater	Off	
CWS-EH-01B	Circulating Water Pump B Motor Heater	Off	
CWS-EH-01C	Circulating Water Pump B Motor Heater	Off	
CWS-MP-01A	CIRCULATING WATER PUMP A	On	All 3 CWS pumps are assumed for full load operation, one for part load.
CWS-MP-01B	CIRCULATING WATER PUMP B	On	All 3 CWS pumps are assumed for full load operation, one for part load.
CWS-MP-01C	CIRCULATING WATER PUMP C	On	All 3 CWS pumps are assumed for full load operation, one for part load.
CWS-PL-V001A	C.W. PUMP A DISCHARGE MOV	Off	No valve operation assumed for this study
CWS-PL-V001B	C.W. PUMP B DISCHARGE MOV	Off	
CWS-PL-V002A	L.P. CONDENSER A INLET MOV	Off	No valve operation assumed for this study
CWS-PL-V002B	L.P.CONDENSER B INLET MOV	Off	
CWS-PL-V003A	H.P. CONDENSER A OUTLET MOV	Off	No valve operation assumed for this study
CWS-PL-V003B	H.P. CONDENSER B OUTLET MOV	Off	No valve operation assumed for this study
CWS-PY-S01A	CWS TO TCS HX BACKWASH STRAINER A	Off	
CWS-PY-S01B	CWS TO TCS HX BACKWASH STRAINER B	Off	
CWS-PY-S01C	CWS TO TCS HX BACKWASH STRAINER C	Off	
DOS-EH-01A	DOS-MB-01A ELECTRIC HEATER	Off	
DOS-EH-01B	DOS-MB-01A ELECTRIC HEATER	Off	
DOS-EH-02A	DOS-MT-02A ELECTRIC HEATER	Off	
DOS-EH-02B	DOS-MT-02B ELECTRIC HEATER	Off	
DOS-EH-03A	ELECTRIC HEATER	Off	
DOS-EH-03B	ELECTRIC HEATER	Off	
DOS-MP-01A	DIESEL FUEL OIL PUMP A	Off	Diesel generator not normally used at power, however, pump is required if fuel needs to be heated.
DOS-MP-01B	DIESEL FUEL OIL PUMP B	Off	Diesel generator not normally used at power, however, pump is required if fuel needs to be heated.
DOS-MP-02A	AUXILIARY BOILER FUEL OIL PUMP A	Off	Aux boiler not normally used at power, assume aux boiler used at startup
DOS-MP-02B	AUXILIARY BOILER FUEL OIL PUMP B	Off	Aux boiler not normally used at power, assume aux boiler used at startup
DTS-EH-01	CIP Electric Inline Heater	Off	DTS only operates intermittently
DTS-MP-01A	RO Unit A Feed Pump	Off	DTS only operates intermittently
DTS-MP-01B	RO Unit B Feed Pump	Off	DTS only operates intermittently
DTS-MP-03	CIP Pump	Off	DTS only operates intermittently
DTS-MP-04	Acid/Salt Injection Pump	Off	
DTS-MP-05	EDI Brine Pump	Off	DTS only operates intermittently
DTS-MP-06	EDI Product Transfer Pump	Off	DTS only operates intermittently
DTS-MV-20A	ELECTRODEIONIZATION STACK A	Off	DTS only operates intermittently

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
DTS-MV-20B	ELECTRODEIONIZATION STACK B	Off	DTS only operates intermittently
DTS-MV-20C	ELECTRODEIONIZATION STACK C	Off	DTS only operates intermittently
DTS-MV-20D	ELECTRODEIONIZATION STACK D	Off	DTS only operates intermittently
DWS-EH-01A	DEMINERALIZED WATER STORAGE TANK HEATER A	Off	Heater not included in guarantee load.
DWS-EH-01B	DEMINERALIZED WATER STORAGE TANK HEATER B	Off	Heater not included in guarantee load.
DWS-EH-02A	CONDENSATE STORAGE TANK HEATER A	Off	Heater not included in guarantee load.
DWS-EH-02B	CONDENSATE STORAGE TANK HEATER B	Off	Heater not included in guarantee load.
DWS-EH-02C	CONDENSATE STORAGE TANK HEATER C	Off	Heater not included in guarantee load.
DWS-EH-02D	CONDENSATE STORAGE TANK HEATER	Off	Heater not included in guarantee load.
DWS-MA-01	DEMIN WTR STOR TK CORS DEGAS BLOWER	Off	DWS does not operate continuously
DWS-MA-02	Condensate Water Stor Tk CORS Degas Blower	Off	
DWS-MP-01A	DEMINERALIZED WATER TRANSFER PUMP A	Off	Assume DWS system not operating.
DWS-MP-01B	DEMINERALIZED WATER TRANSFER PUMP B	Off	DWS does not operate continuously
DWS-MP-02	CORS Feed Pump	Off	
ECS-EC-111	ANNEX BLDG MCC (Rm 40500)	On	
ECS-EC-112	AUX BLDG MCC (Rm 40500)	On	
ECS-EC-121	AUX BLDG MCC 121 (Rm 12213)	On	
ECS-EC-122	TURBINE BLDG MCC 122	On	
ECS-EC-123	DIESEL GEN BLDG MCC 123	On	
ECS-EC-124	PZR HTRS BACKUP GRP A MCC 124 (Rm 12321)	On	Only control group heaters needed for steady-state operation, MCC On, Loads Off
ECS-EC-131	ANNEX BLDG MCC 131 (Rm 40503)	On	
ECS-EC-132	CONTAINMENT MCC 132 (Rm 12321)	On	
ECS-EC-133	AUXILIARY BUILDING MCC 133 (Rm 12321)	On	
ECS-EC-141	ANNEX BLDG MCC 141 (Rm 40413)	On	
ECS-EC-142	PZR HTRS CONTROL GRP MCC 142 (Rm 12321)	On	Only control group heaters needed for steady-state operation. Load based on pressurizer heat loss of 200 kW (Ref: RCS-M3C-008, Rev. 2.
ECS-EC-143	PZR HTRS BACKUP GRP C MCC 143 (Rm 12321)	On	Only control group heaters needed for steady-state operation. MCC On, Loads Off
ECS-EC-211	ANNEX BLDG MCC 211 (Rm 40500)	On	
ECS-EC-212	AUX BLDG MCC 212 (Rm 40500)	On	
ECS-EC-221	AUX BLDG MCC 221 (Rm 12213)	On	
ECS-EC-222	TURBINE BLDG MCC 222	On	
ECS-EC-223	DIESEL GEN BLDG MCC 223	On	
ECS-EC-224	PZR HTRS BACKUP GRP B MCC 224 (Rm 12321)	On	Only control group heaters needed for steady-state operation
ECS-EC-231	ANNEX BLDG MCC 231 (Rm 40503)	On	
ECS-EC-232	CONTAINMENT MCC 232 (Rm 12321)	On	
ECS-EC-233	AUXILIARY BUILDING MCC 233 (Rm 12321)	On	
ECS-EC-241	ANNEX BLDG MCC 241 (Rm 40357)	On	
ECS-EC-242	RADWASTE BLDG MCC 242	On	
ECS-EC-243	PZR HTRS BACKUP GRP D MCC 613 (Rm 12321)	On	Only control group heaters needed for steady-state operation, MCC On, Loads Off

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
ECS-EC-311	TURBINE BLDG MCC 311	On	
ECS-EC-312	TURBINE BLDG MCC 312	On	
ECS-EC-411	TURBINE BLDG MCC 411	On	
ECS-EC-412	TURBINE BLDG MCC 412	On	
ECS-EC-711	TURBINE BLDG MCC 711	On	Turbine BLDG MCC 711 On, Loads are Off / site specific
ECS-EK-11	480 V LOAD CENTER 11	On	
ECS-EK-12	480 V LOAD CENTER 12	On	
ECS-EK-13	480 V LOAD CENTER 13	On	
ECS-EK-14	480 V LOAD CENTER 14	On	
ECS-EK-21	480 V LOAD CENTER 21	On	
ECS-EK-22	480 V LOAD CENTER 22	On	
ECS-EK-23	480 V LOAD CENTER 23	On	
ECS-EK-24	480 V LOAD CENTER 24	On	
ECS-EK-31	480 V LOAD CENTER 31	On	
ECS-EK-41	480 V LOAD CENTER 41	On	
ECS-EK-71	480 V LOAD CENTER 71	On	Load Center On. Loads are Off
ECS-ES-1	6900 V SWITCHGEAR BUS 1	On	
ECS-ES-2	6900 V SWITCHGEAR BUS 2	On	
ECS-ES-3	6900 V SWITCHGEAR BUS 3	On	
ECS-ES-4	6900 V SWITCHGEAR BUS 4	On	
ECS-ES-5	6900 V SWITCHGEAR BUS 5	On	
ECS-ES-6	6900 V SWITCHGEAR BUS 6	On	
ECS-ES-7	6900 V SWITCHGEAR BUS 7	On	
ECS-ET-1111	ANNEX BUILDING PWR XFMR 1111	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1121	AUXILIARY BUILDING PWR XFMR 1121	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1211	AUX BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1221	TURBINE BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1231	DIESEL GENERATOR BUILDING POWER TRANSFORMER 1231	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1311	ANNEX BUILDING PWR XFMR 1311	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1321	CONTAINMENT POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1333	AUXILIARY BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-1411	ANNEX BUILDING PWR XFMR 1411	On	Assume max loading with pf=.9, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2111	ANNEX BUILDING PWR XFMR 2111	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2121	AUXILIARY BUILDING PWR XFMR 2121	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2211	AUX BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2221	TURBINE BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
ECS-ET-2231	DIESEL GENERATOR BUILDING POWER TRANSFORMER 2231	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2311	ANNEX BUILDING PWR XFMR 2311	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2321	CONTAINMENT POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2333	AUXILIARY BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-3111	TURBINE BUILDING POWER TRANSFORMER 3111	On	Assume max loading with pf=.9, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-3121	TURBNIE BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.9, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-4111	TURBINE BUILDING POWER TRANSFORMER 4111	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-4121	TURBNIE BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2411	MACH SHOP DIST XFMR 2411	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-ET-2421	RADWASTE BUILDING POWER TRANSFORMER	On	Assume max loading with pf=.8, min 25% of max. Guarantee load assumed at 50%.
ECS-EV-31	RCP 1A Variable Speed Drive Control Power	On	
ECS-EV-41	RCP 1B Variable Speed Drive Control Power	On	
ECS-EV-51	RCP 2A Variable Speed Drive Control Power	On	
ECS-EV-61	RCP 2B Variable Speed Drive Control Power	On	
ECS-EY-1321	PWR FEED TO 4 CNMT SERVICE MODULE WELDING RECEPT	Off	No welding inside containment during normal operations
ECS-EY-1322	PWR FEED TO 4 CNMT SERVICE MODULE WELDING RECEPT	Off	No welding inside containment during normal operations
ECS-EY-2321	PWR FEED TO 4 CNMT SERVICE MODULE WELDING RECEPT	Off	No welding inside containment during normal operations
ECS-EY-2322	PWR FEED TO 4 CNMT SERVICE MODULE WELDING RECEPT	Off	No welding inside containment during normal operations
EDS1-DC-1	EDS1 BATTERY CHARGER	On	Load based on continuous load requirement of 320 amps (Ref: EDS-E8C-001/R0) and charger efficiency of 90%.
EDS1-DT-1	EDS1 REGULATING XFMR	Off	No loads normally on regulating transformer
EDS2-DC-1	EDS2 BATTERY CHARGER	On	Load based on continuous load requirement of 320 amps (Ref: EDS-E8C-001/R0) and charger efficiency of 90%.
EDS2-DT-1	EDS2 REGULATING XFMR	Off	Regulating transformer not normally used.
EDS3-DC-1	EDS3 BATTERY CHARGER	On	Load based on continuous load requirement of 320 amps (Ref: EDS-E8C-001/R0) and charger efficiency of 90%.
EDS3-DT-1	EDS3 REGULATING XFMR	Off	No loads normally on regulating transformer
EDS4-DC-1	EDS4 BATTERY CHARGER	Off	The dc pumps do not normally operate.
EDSS-DC-1	SPARE NON-1E BATTERY CHARGER	Off	Spare charger not normally used.
EHS-EH-01	HEAT TRACING CABINET	Off	No heat tracing required at warm ambient temperatures.
ELS-ED-1111	ANNEX BLDG LIGHTING PANEL 1111	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1112	ANNEX BLDG LIGHTING PANEL 1112	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1211	AUXILIARY BUILDING LIGHTING PANEL	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1212	AUXILIARY BUILDING LIGHTING PANEL	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1221	TURBINE BLDG LIGHT PANEL 1221	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1222	TURBINE BLDG LIGHT PANEL 1222	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
ELS-ED-1223	TURBINE BLDG LIGHT PANEL 1223	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1231	DIESEL GEN BLDG LIGHTING PANEL 1231	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-1331	AUXILIARY BUILDING LIGHTING PANEL	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2111	ANNEX BLDG LIGHTING PANEL 2111	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2112	ANNEX BLDG LIGHTING PANEL 2112	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2211	AUXILIARY BUILDING LIGHTING PANEL	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2212	AUXILIARY BUILDING LIGHTING PANEL	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2221	TURBINE BLDG LIGHT PANEL 2221	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2222	TURBINE BLDG LIGHT PANEL 2222	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2223	TURBINE BLDG LIGHT PANEL 2223	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2231	DIESEL GEN BLDG LIGHTING PANEL 2231	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2331	AUXILIARY BUILDING LIGHTING PANEL	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ED-2421	RAD WASTE BLDG LIGHTING PANEL 2421	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ET-1111	ANNEX BLDG LIGHTING XFMR 1111	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-1211	AUXILIARY BUILDING LIGHTING TRANSFORMER	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ET-1221	TURBINE BLDG LIGHTING XFMR 1221	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-1231	DIESEL GEN BLDG LIGHTING XFMR 1231	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ET-1321	CONTAINMENT LIGHTING XFMR 1321	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-1322	CONTAINMENT LIGHTING XFMR 1322	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-1331	AUXILIARY BUILDING LIGHTING TRANSFORMER	On	Assume full power at max. and 25% load at min., pf=1.0. P175
ELS-ET-2111	ANNEX BLDG LIGHTING XFMR 2111	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-2211	AUXILIARY BUILDING LIGHTING TRANSFORMER	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ET-2221	TURBINE BLDG LIGHTING XFMR 2221	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-2231	DIESEL GEN BLDG LIGHTING XFMR 2231	On	Assume full power at max. and 25% load at min. Guarantee load assumed at 50%.
ELS-ET-2321	CONTAINMENT LIGHTING XFRMR 2321	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-2322	CONTAINMENT LIGHTING XFRMR 2322	On	Assume full power at max. and 25% load at min., pf=1.0. Guarantee load assumed at 50%.
ELS-ET-2331	AUXILIARY BUILDING LIGHTING TRANSFORMER	On	Assume full power at max. and 25% load at min., pf=1.0. P175
FHS-EM-01	REFUELING MACHINE MOTOR (IC)	Off	Assume no fuel handling operation.
FHS-EM-02	FUEL HANDLING MACHINE MOTOR (OC)	Off	Fuel handling not done during normal operation
FHS-FH-03	NEW FUEL JIB CRANE	Off	Assume no fuel handling operations.
FHS-FH-04	NEW FUEL ELEV & HOIST	Off	Assume no fuel handling operations.
FHS-FH-05	FUEL TRANSFER CONVEYOR (OC)	Off	Assume no fuel handling operations.
FHS-MP-01A	FUEL TRANS UPENDER PUMP (IC)	Off	Assume no fuel handling operation.
FHS-MP-01B	FUEL TRANS UPENDER PUMP (OC)	Off	Assume no fuel handling operations.
FHS-MZ-01	REACTOR VESSEL STUD TENSIONER	Off	Stud tensioner not used at power.
FPS-EH-01A-A	PRIMARY FIRE WATER TANK HEATER ELEMENT A	Off	Heater not included in guarantee load.
FPS-EH-01A-B	PRIMARY FIRE WATER TANK HEATER ELEMENT B	Off	Heater not included in guarantee load.
FPS-EH-01A-C	PRIMARY FIRE WATER TANK HEATER ELEMENT C	Off	Heater not included in guarantee load.

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HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
FPS-EH-01A-D	PRIMARY FIRE WATER TANK HEATER ELEMENT D	Off	Heater not included in guarantee load.
FPS-EH-01B-A	SECONDARY FIRE WTR/CLEAR WELL TANK HTR ELEMENT A	Off	Heater not included in guarantee load.
FPS-EH-01B-B	SECONDARY FIRE WTR/CLEAR WELL TANK HTR ELEMENT B	Off	Heater not included in guarantee load.
FPS-EH-01B-C	SECONDARY FIRE WTR/CLEAR WELL TANK HTR ELEMENT C	Off	Heater not included in guarantee load.
FPS-EH-01B-D	SECONDARY FIRE WTR/CLEAR WELL TANK HTR ELEMENT D	Off	Heater not included in guarantee load.
FPS-EH-02	Diesel fire pump enclosure heater	Off	Heater not included in guarantee load.
FPS-MP-01A	MOTOR-DRIVEN FIRE PMP	Off	Fire pump not normally used
FPS-MP-02	JOCKEY PUMP	On	
FWS-EH-01A	BOOSTER/MAIN FW PUMP A MOTOR HEATER	Off	Main feed pump is operating, heater not needed.
FWS-EH-01B	BOOSTER/MAIN FW PUMP B MOTOR HEATER	Off	Main feed pump is operating, heater not needed.
FWS-EH-01C	BOOSTER/MAIN FW PUMP B MOTOR HEATER	Off	Main feed pump is operating, heater not needed.
FWS-EH-03A	STARTUP FEEDWATER PUMP A MOTOR HEATER	On	
FWS-EH-03B	STARTUP FEEDWATER PUMP B MOTOR HEATER	On	
FWS-MP-02A	MAIN FEEDWATER PUMP A	On	Required HP from D. Hutchins 09/27/2004. 95% efficient motor. Min load 20% of max. Assume startup is two startup pumps and no main pumps.
FWS-MP-02B	MAIN FEEDWATER PUMP B	On	
FWS-MP-02C	MAIN FEEDWATER PUMP C	On	
FWS-MP-03A	STARTUP FEEDWATER PUMP A	Off	SFW not used for normal operation. Assume startup is two startup pumps and no main pumps.
FWS-MP-03B	STARTUP FEEDWATER PUMP B	Off	SFW not used for normal operation. Assume startup is two startup pumps and no main pumps.
FWS-PL-V004A	Main feedwater pump A discharge isolation valve	Off	No valve operation assumed for this study
FWS-PL-V004B	Main feedwater pump discharge isolation valve	Off	No valve operation assumed for this study
FWS-PL-V004C	Main feedwater pump C discharge isolation valve	Off	
FWS-PL-V013A	Sfw pump discharge isolation MOV	Off	No valve operation assumed for this study
FWS-PL-V013B	Sfw pump discharge isolation MOV	Off	No valve operation assumed for this study
GSS-MA-01A	GLAND CONDENSER VAPOR EXHAUSTER 1A	On	One out of two exhausters needed for normal operation
GSS-MA-01B	GLAND CONDENSER VAPOR EXHAUSTER 1B	Off	One out of two exhausters needed for normal operation
HCS-EH-01A	Gas Dryer Heater 01A	Off	
HCS-EH-01B	Gas Dryer Heater 01B	Off	
HCS-MA-01A	Gas Dryer Blower 01A	Off	
HCS-MA-01B	Gas Dryer Blower 01B	Off	
HDS-MP-01	MOISTURE SEPARATOR REHEATER SHELL DRAIN PUMP	On	
HSS-MA-01A	LOOP SEAL VAPOR EXTRACTOR A	Off	
HSS-MA-01B	LOOP SEAL VAPOR EXTRACTOR B	Off	
HSS-MP-01	AIR-SIDE SEAL OIL PUMP	On	
HSS-MP-03	HYDROGEN-SIDE SEAL OIL PUMP	On	
IDSA-DC-1	IDSA BATTERY CHARGER 1	On	Based on IDSA-EA-1 loads of 8.2 kW, 75% inverter efficiency and 90% charger efficiency. No battery recharging. Nominal 12 amp dc loads

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
IDSA-DT-1	IDSA REGULATING XFMR	On	Based on IDSA-EA-2 loads of 3.7 kW and 90% transformer efficiency
IDSB-DC-1	IDSB BATTERY CHARGER 1	On	Based on IDSB-EA-1 loads of 7.1 kW, 75% inverter efficiency and 90% charger efficiency. No battery recharging. Nominal 4 amp dc loads
IDSB-DC-2	IDSB BATTERY CHARGER 2	On	Based on IDSB-EA-3 loads of 5.3 kW, 68% inverter efficiency and 90% charger efficiency. No battery recharging. No dc loads
IDSB-DT-1	IDSB REGULATING XFMR	On	Based on IDSB-EA-2 loads of 7.2 kW and 90% transformer efficiency
IDSC-DC-1	IDSC BATTERY CHARGER 1	On	Based on IDSC-EA-1 loads of 7.1 kW, 75% inverter efficiency and 90% charger efficiency. No battery recharging. Nominal 12 amp dc loads
IDSC-DC-2	IDSC BATTERY CHARGER 2	On	Based on IDSC-EA-3 loads of 5.3 kW, 68% inverter efficiency and 90% charger efficiency. No battery recharging. No dc loads
IDSC-DT-1	IDSC REGULATING XFMR	On	Based on IDSC-EA-2 loads of 7.2 kW and 90% transformer efficiency
IDSD-DC-1	IDSD BATTERY CHARGER 1	On	Based on IDSD-EA-1 loads of 8.2 kW, 75% inverter efficiency and 90% charger efficiency. No battery recharging. Nominal 6 amp dc loads
IDSD-DT-1	IDSD REGULATING XFMR	On	Based on IDSD-EA-2 loads of 4 kW and 90% transformer efficiency
IDSS-DC-1	SPARE BATTERY CHARGER	Off	Spare charger not normally used.
LOS-EH-01	CONDITIONER/PURIFIER UNIT HEATER	Off	Conditioner/purifier is an intermittent load not assumed in this study.
LOS-EH-02	CONDITIONER/PURIFIER UNIT HEATER	Off	Conditioner/purifier assumed to not be in operation.
LOS-MA-01A	VAPOR EXTRACTOR A	On	One of two needed
LOS-MA-01B	VAPOR EXTRACTOR B	Off	One of two needed
LOS-MP-02	AC BEARING OIL PUMP	Off	AC pump not used at power.
LOS-MP-04	AC SEAL OIL BACKUP PUMP	Off	Backup pump not normally used.
LOS-MP-05	Clean Oil Transfer Pump	Off	Transfer pump is an intermittent load not assumed in this study.
LOS-MP-10A	LP BEARING LIFT OIL PUMP A	Off	Lift oil pumps not used at power.
LOS-MP-10B	LP BEARING LIFT OIL PUMP B	Off	Lift oil pumps not used at power.
LOS-MP-10C	LP BEARING LIFT OIL PUMP C	Off	Lift oil pumps not used at power.
LOS-MP-10D	LP BEARING LIFT OIL PUMP D	Off	Lift oil pumps not used at power.
LOS-MP-10E	LP BEARING LIFT OIL PUMP E	Off	Lift oil pumps not used at power.
LOS-MP-10F	LP BEARING LIFT OIL PUMP F	Off	Lift oil pumps not used at power.
LOS-MP-11	VACUUM CONDITIONING UNIT DRAIN PUMP	Off	Drain pump is an intermittent load not assumed in this study.
LOS-MP-12	CONDITIONER/PURIFIER UNIT SUPPLY PUMP	Off	Conditioner/purifier assumed to not be in operation.
LOS-MP-13	CONDITIONER/PURIFIER UNIT VACUUM PUMP	Off	Conditioner/purifier assumed to not be in operation.
MHS-MH-01	CONTAINMENT POLAR CRANE	Off	Polar crane not used when at power
MHS-MH-02	SPENT FUEL SHIPPING CASK CRANE	Off	No crane operation assumed for this study.
MHS-MH-03	STEAM GENERATOR 1 JIB CRANE	Off	Jib crane not used at power.
MHS-MH-04	STEAM GENERATOR 2 JIB CRANE	Off	Jib crane not normally used at power.
MHS-MH-05	EQUIPMENT HATCH HOIST	Off	Hatch hoist not used at power
MHS-MH-06	MAINTENANCE HATCH HOIST	Off	Hatch hoist not normally used at power.
MHS-MH-07A	MSIV MONORAIL HOIST A	Off	Assume hoist not normally used.
MHS-MH-07B	MSIV MONORAIL HOIST B	Off	Assume not used at power

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HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
MHS-MH-09	CONTAINMENT ELEVATOR	Off	Containment elevator not used at power. Elevator assumed not working for guarantee loads.
MHS-MH-11	SHIELD BUILDING EXTERNAL ELEVATOR	Off	Assume shield building elevator not normally used at power. Elevator assumed not working for guarantee loads.
MHS-MH-12	AUXILIARY BUILDING CLEAN SIDE ELEVATOR	Off	Elevator assumed not working for guarantee loads.
MHS-MH-13	AUXILIARY BUILDING RADIATION CONTROL AREA ELEV	Off	Assume elevator not normally used at power. Elevator assumed not working for guarantee loads.
MHS-MH-14	RAIL CAR BAY CRANE AND CONSOLE	Off	
MHS-MH-20	TURBINE BUILDING BRIDGE CRANE	Off	
MHS-MH-21	TURBINE BUILDING SECONDARY BRIDGE CRANE	Off	Cranes not operated for this study
MHS-MH-23	TURBINE BUILDING ELEVATOR	Off	Elevator assumed not working for guarantee loads.
MHS-MH-40	ANNEX BUILDING STAGING AREA CRANE	Off	Cranes not operated for this study
MHS-MH-41	ANNEX BUILDING HOT MACHINE SHOP CRANE	Off	Cranes not operated for this study
MHS-MH-42	BORIC ACID HANDLING MONORAIL	Off	Assume no boric acid batching operation.
MHS-MH-45	ANNEX BUILDING ELEVATOR	Off	Elevator assumed not working for guarantee loads.
MHS-MH-50	MOBILE SYSTEMS FACILITY CRANE	Off	Cranes not operated for this study.
MHS-MH-51	CLOSED VAN LOADING SCISSOR LIFT (PORTABLE)	Off	Cranes not operated for this study.
MSS-PL-V015	MSR reheat supply steam isolation MOV	Off	
MSS-PL-V025	MSS supply to gland seal system - isolation MOV	Off	No valve operation assumed for this study
MSS-PL-V501	EXT STEAM TO HEATER 7 MOV	Off	No valve operation assumed for this study
MSS-PL-V502	EXT STEAM TO HEATER 6 MOV	Off	No valve operation assumed for this study
MSS-PL-V503	EXT STEAM TO DEA HTR 5 MOV	Off	No valve operation assumed for this study
MSS-PL-V504	EXT STEAM TO HEATER 4 MOV	Off	No valve operation assumed for this study
MSS-PL-V505	EXT STEAM TO HEATER 3 MOV	Off	No valve operation assumed for this study
MSS-PL-V577	MSS to VYS isolation MOV	Off	
MTS-EM-01	MAIN TRBN TURNING GEAR MTR	Off	Turning gear not used at power.
PCS-EH-01	RECIRCULATION HEATER ELEMENT	Off	Assume PCS heater not needed for guarantee load. Assumed warm ambient temperature.
PCS-EH-02A	Ancillary Water Storage Tank Heater Element A	Off	Assume ancillary tank heater not needed for guarantee load. Assumed warm ambient temperature.
PCS-EH-02B	Ancillary Water Storage Tank Heater Element B	Off	Assume ancillary tank heater not needed for guarantee load. Assumed warm ambient temperature.
PCS-EH-02C	Ancillary Water Storage Tank Heater Element C	Off	Assume ancillary tank heater not needed for guarantee load. Assumed warm ambient temperature.
PCS-EH-02D	Ancillary Water Storage Tank Heater Element D	Off	Assume ancillary tank heater not needed for guarantee load. Assumed warm ambient temperature.
PCS-MP-01A	RECIRCULATION PUMP A	On	One of two needed
PCS-MP-01B	RECIRCULATION PUMP B	Off	One of two needed
PGS-ME-07	CARBON DIOXIDE ELECTRIC VAPORIZER	Off	
PGS-MP-01	LIQUID NITROGEN PUMP	Off	
PGS-MS-03	CARBON DIOXIDE PACKAGE	Off	
PLS-MG-01A	ROD DRIVE M/G SET A	On	Assume no rods stepping and two MG sets sharing the load. This assumption should result in about 90 kW (or less).
PLS-MG-01B	ROD DRIVE M/G SET B	On	Assume no rods stepping and two MG sets sharing the load. This assumption should result in about 90 kW (or less).

Attachment A

HOUSE LOADS EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
PSS-MP-01	EDUCTOR SUPPLY PUMP	Off	
PWS-MP-01A	POTABLE WATER SUPPLY PUMP A	Off	
PWS-MP-01B	POTABLE WATER SUPPLY PUMP B	On	
PWS-MP-02	POTABLE WATER JOCKEY PUMP	On	
PXS-PL-V027A	Accum A Discharge Isolation	Off	No valve operation assumed for this study
PXS-PL-V027B	Accum B Discharge Isolation	Off	No valve operation assumed for this study
PXS-PL-V121A	IRWST Line A Isolation	Off	No valve operation assumed for this study
PXS-PL-V121B	IRWST Line B Isolation	Off	No valve operation assumed for this study
RCS-EH-03-1	Pressurizer Heaters –Control Group, Bank 1	On	200KW pressurizer heater requires for normal operation
RCS-EH-03-2	Pressurizer Heaters –Control Group, Bank 2	On	
RCS-EH-03-3	Pressurizer Heaters –Control Group, Bank 3	On	
RCS-EH-03-4	Pressurizer Heaters –Control Group, Bank 4	On	
RCS-EH-03-5	Pressurizer Heaters –Control Group, Bank 5	Off	
RCS-EH-03-6	Pressurizer Heaters –Control Group, Bank 6	Off	
RCS-EH-04A-1	Pressurizer Heaters –Control Group A, Bank 1	Off	
RCS-EH-04A-2	Pressurizer Heaters –Control Group A, Bank 2	Off	
RCS-EH-04A-3	Pressurizer Heaters –Control Group A, Bank 3	Off	
RCS-EH-04A-4	Pressurizer Heaters –Control Group A, Bank 4	Off	
RCS-EH-04B-1	Pressurizer Heaters –Control Group B, Bank 1	Off	
RCS-EH-04B-2	Pressurizer Heaters –Control Group B, Bank 2	Off	
RCS-EH-04B-3	Pressurizer Heaters –Control Group B, Bank 3	Off	
RCS-EH-04B-4	Pressurizer Heaters –Control Group B, Bank 4	Off	
RCS-EH-04C-1	Pressurizer Heaters –Control Group C, Bank 1	Off	
RCS-EH-04C-2	Pressurizer Heaters –Control Group C, Bank 2	Off	
RCS-EH-04C-3	Pressurizer Heaters –Control Group C, Bank 3	Off	
RCS-EH-04C-4	Pressurizer Heaters –Control Group C, Bank 4	Off	
RCS-EH-04C-5	Pressurizer Heaters –Control Group C, Bank 5	Off	
RCS-EH-04C-6	Pressurizer Heaters –Control Group C, Bank 6	Off	
RCS-EH-04D-1	Pressurizer Heaters –Control Group D, Bank 1	Off	
RCS-EH-04D-2	Pressurizer Heaters –Control Group D, Bank 2	Off	
RCS-EH-04D-3	Pressurizer Heaters –Control Group D, Bank 3	Off	
RCS-EH-04D-4	Pressurizer Heaters –Control Group D, Bank 4	Off	
RCS-EH-04D-5	Pressurizer Heaters –Control Group Bank 5	Off	
RCS-EH-04D-6	Pressurizer Heaters –Control Group D, Bank 6	Off	
RCS-MP-01A	SG 1A RX COOLANT PUMP	On	
RCS-MP-01B	SG 1B RX COOLANT PUMP	On	
RCS-MP-02A	SG 2A RX COOLANT PUMP	On	
RCS-MP-02B	SG 2B RX COOLANT PUMP	On	
RCS-PL-V111A	Pressurizer Spray Block Valve	Off	No valve operation assumed for this study

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HOUSE LOADS EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
RCS-PL-V111B	Pressurizer Spray Block Valve	Off	No valve operation assumed for this study
RNS-MP-01A	RESIDUAL HEAT REMOVAL PUMP A	Off	RNS not required for at-power operation, assume two pumps at shutdown
RNS-MP-01B	RESIDUAL HEAT REMOVAL PUMP B	Off	RNS not required for at-power operation, assume two pumps at shutdown
RNS-PL-V024	RNS Discharge to IRWST Isolation	Off	No valve operation assumed for this study
RNS-PL-V055	RNS Suction from Cask Loading Pit Isol Valve	Off	
RWS-EH-03A	RAW WATER PUMP A MOTOR HEATER	Off	Two of the three RWS pumps are required for normal operation, heater not needed when motor is operating.
RWS-EH-03B	RAW WATER PUMP B MOTOR HEATER	Off	Two of the three RWS pumps are required for normal operation
RWS-EH-03C	RAW WATER PUMP C MOTOR HEATER	On	Two of the three RWS pumps are required for normal operation
RWS-MP-03A	RAW WATER PUMP A	On	Two of the three RWS pumps are required for normal operation. Two pumps required for cooldown.
RWS-MP-03B	RAW WATER PUMP B	On	Two of the three RWS pumps are required for normal operation
RWS-MP-03C	RAW WATER PUMP C	Off	Two of the three RWS pumps are required for normal operation
RWS-Ancillary Pump A	RWS Ancillary Pump A	On	One of the two RWS Ancillary Pumps is required for normal operation (Site Specific)
RWS-Ancillary Pump B	RWS Ancillary Pump B	Off	
RWS-MP-04A	CLEARWELL PUMP A	Off	
RWS-MP-04B	CLEARWELL PUMP B	Off	
RXS-MA-01A	CRDM COOLING FAN A	On	Two of three CRDM fans needed, no fans needed at shutdown
RXS-MA-01B	CRDM COOLING FAN B	Off	Two of three CRDM fans needed, no fans needed at shutdown
RXS-MA-01C	CRDM COOLING FAN C	On	Two of three CRDM fans needed
SFS-MP-01A	SPENT FUEL COOLING PUMP A	Off	Assume 1 of 2 pumps operating
SFS-MP-01B	SPENT FUEL COOLING PUMP B	Off	Assume 1 of 2 pumps operating
SSS-MS-01	CONDENSER HOTWELL PUMP PACKAGE	Off	
SSS-MS-02	SECONDARY SAMPLING PACKAGE	Off	
SSS-MS-04	COOLING WATER PACKAGE	Off	
SWS-EH-01A	Service Water Pump A Motor Heater	Off	
SWS-EH-01B	Service Water Pump B Motor Heater	On	
SWS-EH-02A	Service Water Pump A Motor Heater	Off	
SWS-EH-02B	Service Water Pump B Motor Heater	On	
SWS-MA-01A	SERVICE WATER COOLING TOWER FAN A	On	Assume one fan for normal operation. Two required for cooldown.
SWS-MA-01B	SERVICE WATER COOLING TOWER FAN B	Off	Assume one fan for normal operation. Two required for cooldown.
SWS-MP-01A	SERVICE WATER PUMP A	On	One of the two SWS pumps are required for normal operation. Two required for cooldown.
SWS-MP-01B	SERVICE WATER PUMP B	Off	One of the two SWS pumps are required for normal operation. Two required for cooldown.
SWS-PL-V002A	SWS Pump A Discharge MOV	Off	No valve operation assumed for this study
SWS-PL-V002B	SWS Pump B Discharge MOV	Off	No valve operation assumed for this study
SWS-PL-V037A	SWS Cooling Tower A MOV	Off	

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
SWS-PL-V037B	SWS Cooling Tower B MOV	Off	
SWS-PY-S06A	SWS SELF CLEANING STRAINER A	On	
SWS-PY-S06B	SWS SELF CLEANING STRAINER B	Off	One of two needed
TCS-EH-01A	TCS PUMP A MOTOR HEATER	Off	Motor heater not needed when motor is in operation.
TCS-EH-01B	TCS PUMP B MOTOR HEATER	On	
TCS-MP-01A	TURBINE BUILDING CLOSED COOLING WATER PUMP A	On	One of two TCS pumps required for normal operation
TCS-MP-01B	TURBINE BUILDING CLOSED COOLING WATER PUMP B	Off	One of two TCS pumps required for normal operation
TOS-EH-01	EH FLUID RESERVOIR IMMERSION HEATER	Off	Heater may be needed for low ambient temperatures
TOS-MA-01A	EH FLUID HX COOLING FAN A	On	One of two fans needed for normal operation
TOS-MA-01B	EH FLUID HX COOLING FAN B	Off	One of two fans needed for normal operation
TOS-MP-01A	ELECTRO-HYDRAULIC FLUID SUPPLY PUMP A	On	One of two pumps needed
TOS-MP-01B	ELECTRO-HYDRAULIC FLUID SUPPLY PUMP B	Off	One of two pumps needed
VAS-EH-01A	RADIATION CHEMISTRY LABORATORY DUCT HEATER STAGE A	Off	Heater not included in guarantee load.
VAS-EH-01B	RADIATION CHEMISTRY LABORATORY DUCT HEATER STAGE B	Off	Heater not included in guarantee load.
VAS-EH-02A	SECURITY ROOM DUCT HEATER STAGE A	Off	Heater not included in guarantee load.
VAS-EH-02B	SECURITY ROOM DUCT HEATER STAGE B	Off	Heater not included in guarantee load.
VAS-MA-01A	AUXILIARY/ANNEX BUILDING SUPPLY FAN A	On	
VAS-MA-01B	AUXILIARY/ANNEX BUILDING SUPPLY FAN B	Off	One of two fans needed for normal operation
VAS-MA-02A	AUXILIARY/ANNEX BUILDING EXHAUST FAN A	On	
VAS-MA-02B	AUXILIARY/ANNEX BUILDING EXHAUST FAN B	Off	
VAS-MA-05A	FUEL HANDLING AREA SUPPLY FAN A	On	
VAS-MA-05B	FUEL HANDLING AREA SUPPLY FAN B	Off	One of two fans needed for normal operation
VAS-MA-06A	FUEL HANDLING AREA EXHAUST FAN A	On	
VAS-MA-06B	FUEL HANDLING AREA EXHAUST FAN B	Off	
VAS-MA-07A	CHEMICAL VOLUME CONTROL SYSTEM PUMP ROOM FAN A	On	
VAS-MA-07B	CHEMICAL VOLUME CONTROL SYSTEM PUMP ROOM FAN B	On	
VAS-MA-08A	NORMAL RESIDUAL HEAT REMOVAL PUMP ROOM FAN A	On	
VAS-MA-08B	NORMAL RESIDUAL HEAT REMOVAL PUMP ROOM FAN B	Off	
VAS-MY-H01	RADIATION CHEMISTRY LABORATORY HUMIDIFIER	On	
VAS-MY-H02	SECURITY ROOM HUMIDIFIER	Off	
VAS-MY-U01A	Middle Annulus Heater A	Off	Heater not included in guarantee load.
VAS-MY-U01B	Middle Annulus Heater B	Off	Heater not included in guarantee load.
VAS-MY-U01C	Middle Annulus Heater C	Off	Heater not included in guarantee load.
VAS-MY-U01D	Middle Annulus Heater D	Off	Heater not included in guarantee load.
VBS-EH-01A	MCR/TSC AHU ELECTRIC HEATER A	Off	One of two heaters required for normal operation
VBS-EH-01B	MCR/TSC AHU ELECTRIC HEATER B	Off	One of two heaters required for normal operation
VBS-EH-02A	A/C 1E ROOM AHU ELEC HTR A	Off	One of two heaters required. Heaters not included in guarantee loads.

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
VBS-EH-02B	B/D 1E ROOM AHU ELEC HTR B	Off	One of two heaters required
VBS-EH-02C	A/C 1E ROOM AHU ELEC HTR C	Off	One of two heaters required
VBS-EH-02D	B/D 1E ROOM AHU ELEC HTR D	Off	One of two heaters required. Heaters not included in guarantee loads.
VBS-EH-04A	FILTER UNIT ELECTRIC HTR A	Off	Supplemental filtration system not normally used.
VBS-EH-04B	FILTER UNIT ELECTRIC HTR B	Off	Supplemental filtration system not normally used.
VBS-MA-01A	MCR/TSC AHU SUPPLY FAN A	On	One of two needed
VBS-MA-01B	MCR/TSC AHU SUPPLY FAN B	Off	One of two needed
VBS-MA-02A	MCR/TSC AHU RETURN AND SMOKE PURGE FAN A	On	One of two needed
VBS-MA-02B	MCR/TSC AHU RETURN AND SMOKE PURGE FAN B	Off	One of two needed
VBS-MA-03A	SUPPLEMENTAL AIR FILTRATION UNIT FAN A	Off	Supplemental air filtration not used during normal operation.
VBS-MA-03B	SUPPLEMENTAL AIR FILTRATION UNIT FAN B	Off	Supplemental air filtration not used during normal operation.
VBS-MA-04	MCR TOILET EXHAUST FAN	On	
VBS-MA-05A	A/C 1E ROOM AHU SUPPLY FAN A	On	One of two needed
VBS-MA-05B	B/D 1E ROOM AHU SUPPLY FAN B	On	
VBS-MA-05C	A/C 1E ROOM AHU SUPPLY FAN C	Off	One of two needed
VBS-MA-05D	B/D 1E ROOM AHU SUPPLY FAN D	Off	One of two needed
VBS-MA-06A	A/C 1E ROOM - RETURN FAN A	On	One of two needed
VBS-MA-06B	B/D 1E ROOM RETURN FAN B	On	
VBS-MA-06C	A/C 1E ROOM RETURN FAN C	Off	One of two needed
VBS-MA-06D	B/D 1E ROOM - RETURN FAN D	Off	One of two needed
VBS-MA-07A	A/C BATTERY ROOM EXH FAN A	On	One of two needed
VBS-MA-07B	B/D BATTERY ROOM EXH FAN B	On	
VBS-MA-07C	A/C BATTERY ROOM EXH FAN C	Off	
VBS-MA-07D	B/D BATTERY ROOM EXH FAN D	Off	One of two needed
VBS-MA-08	PCS VALVE ROOM VENT FAN	On	
VBS-MA-09	TSC TOILET EXHAUST FAN	On	
VBS-MY-H01A	MCR/TSC AHU HUMIDIFIER A	On	One of two needed
VBS-MY-H01B	MCR/TSC AHU HUMIDIFIER B	Off	One of two needed
VBS-MY-U01A	PCS VALVE ROOM UNIT HEATER A	Off	Heater not included in guarantee load.
VBS-MY-U01B	PCS VALVE ROOM UNIT HEATER B	Off	Heater not included in guarantee load.
VCS-MA-01A	REACTOR CONTAINMENT RECIRCULATION FAN A	On	Two of four fans required for normal operation
VCS-MA-01B	REACTOR CONTAINMENT RECIRCULATION FAN B	On	Two of four fans required for normal operation
VCS-MA-01C	REACTOR CONTAINMENT RECIRCULATION FAN C	Off	Two of four fans required for normal operation
VCS-MA-01D	REACTOR CONTAINMENT RECIRCULATION FAN D	Off	Two of four fans required for normal operation
VFS-EH-01A	CONTAINMENT EXHAUST ELECTRIC HEATER A	Off	VFS not normally operated
VFS-EH-01B	CONTAINMENT EXHAUST ELECTRIC HEATER B	Off	VFS not normally operated
VFS-MA-01A	CONTAINMENT SUPPLY FAN A	Off	VFS not normally operated
VFS-MA-01B	CONTAINMENT SUPPLY FAN B	Off	VFS not normally operated
VFS-MA-02A	CONTAINMENT EXHAUST FAN A	Off	VFS not normally operated

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HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
VFS-MA-02B	CONTAINMENT EXHAUST FAN B	Off	VFS not normally operated
VHS-MA-01A	AHU A SUPPLY FAN	On	
VHS-MA-01B	AHU B SUPPLY FAN	Off	One of two fans needed for normal operation
VHS-MA-02A	HEALTH PHYSICS/MACHINE SHOP EXHAUST FAN A	On	
VHS-MA-02B	HEALTH PHYSICS/MACHINE SHOP EXHAUST FAN B	Off	One of two fans needed for normal operation
VHS-MA-03	MACHINE TOOLS EXHAUST FAN	On	
VHS-MY-H01	HUMIDIFIER	On	
VRS-MA-01A	AHU A SUPPLY FAN	On	
VRS-MA-01B	AHU B SUPPLY FAN	Off	One of two fans needed for normal operation
VRS-MA-02A	FILTRATION UNIT A EXH FAN	On	
VRS-MA-02B	FILTRATION UNIT B EXH FAN	Off	One of two fans needed for normal operation
VRS-MY-W01A	MOBILE SYSTEM FACILITY HOT WATER UNIT HEATER A	Off	Heater not included in guarantee load.
VRS-MY-W01B	MOBILE SYSTEM FACILITY HOT WATER UNIT HEATER B	Off	Heater not included in guarantee load.
VRS-MY-W01C	MOBILE SYSTEM FACILITY HOT WATER UNIT HEATER C	Off	Heater not included in guarantee load.
VTS-EH-01	SAMPLE ROOM / LABORATORY DUCT HEATER	Off	Heater not included in guarantee load.
VTS-EH-03	OFFICE AREA DUCT HEATER	Off	Heater not included in guarantee load.
VTS-EH-04	WORK STATION AREA DUCT HEATER	Off	Heater not included in guarantee load.
VTS-MA-01A	PERSONNEL AREA AHU A SUPPLY FAN	On	Assume one of two needed.
VTS-MA-01B	PERSONNEL AREA AHU B SUPPLY FAN	Off	Assume one of two needed.
VTS-MA-05A	EL EQ RM AHU A RETURN FAN	On	Assume one of two needed.
VTS-MA-05B	EL EQ RM AHU B RETURN FAN	Off	Assume one of two needed.
VTS-MA-06A	EL EQ RM AHU A SUPPLY FAN	On	Assume one of two needed.
VTS-MA-06B	EL EQ RM AHU B SUPPLY FAN	Off	Assume one of two needed.
VTS-MA-13	TURBINE LUBE OIL RESERVOIR ROOM EXHAUST FAN	On	
VTS-MA-14	LUBE OIL STORAGE ROOM EXHAUST FAN	On	
VTS-MY-V01A	TRBN BLDG ROOF EXH UNIT VENT A	On	
VTS-MY-V01B	TRBN BLDG ROOF EXH UNIT VENT B	On	
VTS-MY-V01C	TRBN BLDG ROOF EXH UNIT VENT C	On	
VTS-MY-V01D	TRBN BLDG ROOF EXH UNIT VENT D	On	
VTS-MY-V01E	TRBN BLDG ROOF EXH UNIT VENT E	On	
VTS-MY-V01F	TRBN BLDG ROOF EXH UNIT VENT F	On	
VTS-MY-V02	HEATER BAY ROOF EXH UNIT VENT	On	
VTS-MY-V03	MOTOR DRIVEN FIRE PUMP ROOM UNIT VENTILATOR	On	Assumes low-speed (half speed) operation with no fire pump operation
VTS-MY-V04	DIESEL FIRE PUMP ROOM UNIT VENTILATOR	On	Assumes low-speed (half speed) operation with no fire pump operation
VTS-MY-V05A	AUX BOILER ROOM EXHAUST VENTILATOR A	On	Assumes low-speed (half speed) operation with no aux. boiler operation
VTS-MY-V05B	AUX BOILER ROOM EXHAUST VENTILATOR B	On	Assumes low-speed (half speed) operation with no aux. boiler operation
VWS-MP-01A	WATER CHILLER PUMP A	On	One of two chillers required for normal operation
VWS-MP-01B	WATER CHILLER PUMP B	Off	One of two chillers required for normal operation

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
VWS-MP-02	AIR COOLED CHILLER PUMP 2	On	One of two needed
VWS-MP-03	AIR COOLED CHILLER PUMP 3	Off	One of two needed
VWS-MS-01A	WATER CHILLER A	On	One of two chillers required for normal operation
VWS-MS-01B	WATER CHILLER B	Off	One of two chillers required for normal operation
VWS-MS-02	AIR COOLED CHILLER 2	On	One of two chillers required for normal operation
VWS-MS-03	AIR COOLED CHILLER 3	Off	One of two chillers required for normal operation
VXS-EH-02	REST ROOM/CORRIDOR ELECT HEATING COIL	Off	Heater not included in guarantee load.
VXS-EH-03	ACCESS CORRIDOR ELECTRIC DUCT HEATER	Off	Heater not included in guarantee load.
VXS-EH-04	SECURITY ROOM #2 ELECTRIC DUCT HEATER	Off	Heater not included in guarantee load.
VXS-EH-05	CENTRAL ALARM STATION ELECTRIC DUCT HEATER	Off	Heater not included in guarantee load.
VXS-EH-06	SHOWER/CHANGING AREA ELECTRIC DUCT HEATER	Off	Heater not included in guarantee load.
VXS-MA-01A	EQUIPMENT ROOM RETURN AIR FAN A	On	Assume one of two AHUs needed
VXS-MA-01B	EQUIPMENT ROOM RETURN AIR FAN B	Off	Assume one of two AHUs needed
VXS-MA-02A	EQUIPMENT ROOM AHU A SUPPLY FAN	On	Assume one of two AHUs needed
VXS-MA-02B	EQUIPMENT ROOM AHU B SUPPLY FAN	Off	Assume one of two AHUs needed
VXS-MA-03A	GENERAL AREA AHU A SUPPLY FAN	On	
VXS-MA-03B	GENERAL AREA AHU B SUPPLY FAN	Off	One of two fans needed for normal operation
VXS-MA-04A	MSIV COMP A AHU-A SUPPLY FAN	On	One of two needed
VXS-MA-04B	MSIV COMP B AHU-B SUPPLY FAN	On	One of two needed
VXS-MA-04C	MSIV COMP B AHU-C SUPPLY FAN	Off	One of two needed
VXS-MA-04D	MSIV COMP A AHU-D SUPPLY FAN	Off	One of two needed
VXS-MA-05A	SWITCHGEAR ROOM AHU A SUPPLY FAN	On	Assume one of two AHUs needed
VXS-MA-05B	SWITCHGEAR ROOM AHU B SUPPLY FAN	Off	Assume one of two AHUs needed
VXS-MA-06A	SWITCHGEAR ROOM RETURN AIR FAN A	On	Assume one of two AHUs needed
VXS-MA-06B	SWITCHGEAR ROOM RETURN AIR FAN B	Off	Assume one of two AHUs needed
VXS-MA-07A	MECHANICAL EQUIPMENT ROOM SUPPLY AIR FAN A	On	
VXS-MA-07B	MECHANICAL EQUIPMENT ROOM SUPPLY AIR FAN B	Off	One of two fans needed for normal operation
VXS-MA-08A	VLV/PIPING PEN RM AHU A SUPP FAN	On	One of two needed
VXS-MA-08B	VLV/PIPING PEN RM AHU B SUPP FAN	Off	One of two needed
VXS-MA-09A	BATTERY ROOM #1 EXH FAN	On	
VXS-MA-09B	BATTERY ROOM #2 EHX FAN	On	
VXS-MA-11A	MECH EQP AREA AHU A RETURN AIR FAN	On	
VXS-MA-11B	MECH EQP AREA AHU B RETURN AIR FAN	Off	One of two fans needed for normal operation
VXS-MA-12	Temp Electric Power Supply Room Exhaust Fan	On	
VXS-MA-13	TOILET EXHAUST FAN	On	
VXS-MY-H01	GENERAL AREA AHU HUMIDIFIER	On	
VXS-MY-H02	EQUIPMENT ROOM AHU HUMIDIFIER	On	
VXS-MY-U01	ELEVATOR MACHINE ROOM ELEC UNIT HEATER	Off	Elevator assumed not working for guarantee loads.
VXS-MY-V01	ELEVATOR MACHINE ROOM WALL EXHAUSTER	On	

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
VXS-MY-V02	ANNEX BLDG ROOF VENTILATOR	On	
VYS-MP-01A	HOT WATER PUMP A	On	
VYS-MP-01B	HOT WATER PUMP B	On	
VZS-EH-01A	SRVC MODULE AHU A ELEC HTNG COIL	Off	Heater not included in guarantee load.
VZS-EH-01B	SRVC MODULE AHU B ELEC HTNG COIL	Off	Heater not included in guarantee load.
VZS-MA-01A	SERVICE MODULE AHU A SUPPLY FAN	On	
VZS-MA-01B	SERVICE MODULE AHU B SUPPLY FAN	On	
VZS-MA-02A	FUEL OIL DAY TK VAULT EXH FAN A	On	
VZS-MA-02B	FUEL OIL DAY TK VAULT EXH FAN B	On	
VZS-MA-03A	ENGINE ROOM AHU SUPPLY FAN A	On	
VZS-MA-03B	ENGINE ROOM AHU SUPPLY FAN B	On	
VZS-MY-U01A	ELECTRIC UNIT HEATER 1A	Off	Heater not included in guarantee load.
VZS-MY-U01B	ELECTRIC UNIT HEATER 1B	Off	Heater not included in guarantee load.
VZS-MY-U02A	ELECTRIC UNIT HEATER 2A	Off	Heater not included in guarantee load.
VZS-MY-U02B	ELECTRIC UNIT HEATER 2B	Off	Heater not included in guarantee load.
VZS-MY-U03A	DIESEL OIL TRANSFER MODULE ENCLOSURE A UNIT HEATER	Off	Heater not included in guarantee load.
VZS-MY-U03B	DIESEL OIL TRANSFER MODULE ENCLOSURE B UNIT HEATER	Off	Heater not included in guarantee load.
VZS-MY-V01A	D/G BLDG STANDBY EXHAUST FAN 1A	Off	Standby ventilation not used when diesels are not running.
VZS-MY-V01B	D/G BLDG STANDBY EXHAUST FAN 1B	Off	Standby ventilation not used when diesels are not running.
VZS-MY-V02A	D/G BLDG STANDBY EXHAUST FAN 2A	Off	Standby ventilation not used when diesels are not running.
VZS-MY-V02B	D/G BLDG STANDBY EXHAUST FAN 2B	Off	Standby ventilation not used when diesels are not running.
VZS-MY-V03A	DIESEL OIL TRANSFER MODULE ENCLOSURE A EXH FAN	On	
VZS-MY-V03B	DIESEL OIL TRANSFER MODULE ENCLOSURE B EXH FAN	On	
WGS-MP-01A	SAMPLE PUMP A	Off	
WGS-MP-01B	SAMPLE PUMP B	Off	
WLS-MP-01A	REACTOR COOLANT DRAIN PUMP A	Off	
WLS-MP-01B	REACTOR COOLANT DRAIN PUMP B	Off	
WLS-MP-02A	CONTAINMENT SUMP PUMP A	Off	
WLS-MP-02B	CONTAINMENT SUMP PUMP B	Off	
WLS-MP-03A	DEGASIFIER VACUUM PUMP A	Off	
WLS-MP-03B	DEGASIFIER VACUUM PUMP B	Off	
WLS-MP-05A	DEGASIFIER SEPARATOR PUMP A	Off	
WLS-MP-05B	DEGASIFIER SEPARATOR PUMP B	Off	
WSS-MP-01	RESIN TRANSFER PUMP	Off	
WWS-MP-04A	BASIN A TRANSFER PUMP	Off	
WWS-MP-04B	BASIN B TRANSFER PUMP	Off	
ZAS-EJ-01A	MAIN TRANS COOLING PHASE A JUNCTION BOX	On	
ZAS-EJ-01B	MAIN TRANS COOLING PHASE B JUNCTION BOX	On	
ZAS-EJ-01C	MAIN TRANS COOLING PHASE C JUNCTION BOX	On	

Attachment A

HOUSE LOADS
EQUIPMENT ON/OFF LIST

Tag No.	Component Description	On/ Off	Load Note
ZAS-EJ-01D	MAIN TRANS COOLING PHASE SPARE JUNCTION BOX	Off	Spare transformer not normally used.
ZAS-EJ-02A	GEN BKR COOLING UNIT PHASE A JUNCTION BOX	On	
ZAS-EJ-02B	GEN BKR COOLING UNIT PHASE B JUNCTION BOX	On	
ZAS-EJ-02C	GEN BKR COOLING UNIT PHASE C JUNCTION BOX	On	
ZAS-EJ-03	ISOPHASE BUS DUCT HEATER UNIT JUNCTION BOX	Off	Heater not included in guarantee load.
ZBS-ED-01	SWITCHYARD FEED #1 DIST PANEL	Off	Not included in plant house loads
ZBS-ED-02	SWITCHYARD FEED #2 DIST PANEL	Off	Not included in plant house loads
ZOS-EH-01A	DG A ELECTRIC JACKET WATER HTR	On	
ZOS-EH-01B	DG B ELECTRIC JACKET WATER HTR	On	
ZOS-EH-02A	DG A KEEP WARM LUBE OIL HEATER	On	
ZOS-EH-02B	DG B KEEP WARM LUBE OIL HEATER	On	
ZOS-EH-03A	DG A GENERATOR SPACE HEATER	Off	Heater not included in guarantee load.
ZOS-EH-03B	DG B GENERATOR SPACE HEATER	Off	Heater not included in guarantee load.
ZOS-MA-01A	DG A FUEL OIL COOLER FAN	Off	Fan not needed when diesel not operating.
ZOS-MA-01B	DG B FUEL OIL COOLER FAN	Off	Fan not needed when diesel not operating.
ZOS-MA-10A	DG A RADIATOR FAN 1	Off	Fan not needed when diesel not operating.
ZOS-MA-10B	DG B RADIATOR FAN 1	Off	Fan not needed when diesel not operating.
ZOS-MA-11A	DG A RADIATOR FAN 2	Off	Fan not needed when diesel not operating.
ZOS-MA-11B	DG B RADIATOR FAN 2	Off	Fan not needed when diesel not operating.
ZOS-MK-01A	DG A ELECTRIC MTR DRVN AIR COMPRESSOR	Off	Assume air compressor not running (receivers are already full)
ZOS-MK-01B	DG B ELECTRIC MTR DRVN AIR COMPRESSOR	Off	Assume air compressor not running (receivers are already full)
ZOS-MP-02A	DG A AC MOTOR PRELUBE OIL PUMP	On	
ZOS-MP-02B	DG B AC MOTOR PRELUBE OIL PUMP	On	
ZOS-MP-06A	DG A ELECTRIC JACKET WTR HTR PMP	On	
ZOS-MP-06B	DG B ELECTRIC JACKET WTR HTR PMP	On	
	Site Specific Load		
N/A	200 HP Mechanical Draft Cooling Tower Fans	On	Assume all 32 mechanical draft cooling tower fans are operating

EXHIBIT M-1
Software License

This software license agreement (this "License Agreement") is entered into as of the _____ day of May, 2008, by and between South Carolina Electric & Gas Company ("SCE&G"), for itself and as agent for the South Carolina Public Service Authority, a body corporate and politic created by the laws of South Carolina ("Santee Cooper") pursuant to the Limited Agency Agreement between SCE&G and Santee Cooper dated _____, 2008; and a consortium consisting of WESTINGHOUSE ELECTRIC COMPANY LLC, a Delaware limited liability company having a place of business in Monroeville, Pennsylvania ("Westinghouse"), and STONE & WEBSTER, INC., a Louisiana corporation having a place of business in Charlotte, North Carolina ("Stone & Webster"). Except where the context otherwise requires, Westinghouse and Stone & Webster hereinafter are individually referred to as a "Consortium Member" and collectively as "Contractor".

1. Definitions. For purposes of this software license (this "License Agreement"), the terms listed below shall have the meanings indicated beside them. Capitalized terms not otherwise defined below shall have the meanings ascribed to them in the Agreement (as defined below).

(a) "Agreement" shall mean that certain Engineering, Procurement and Construction Agreement, dated the date hereof, between South Carolina Electric & Gas Company, for itself and as Agent for the South Carolina Public Service Authority, as Owner, and Consortium Consisting of Westinghouse Electric Company LLC and Stone & Webster, Inc., as Contractor for AP1000 Nuclear Power Plants.

(b) "Available Software" shall mean Software developed by or on behalf of a Consortium Member (excluding software to be delivered under a separate nuclear fuel contract) that, as of the date in question, either has been provided to Owner or is complete and ready for delivery, provided, however, it is understood that Available Software does not include Third-Party Software.

(c) "Configuration Data" shall mean the Unit-specific data that is used in conjunction with the Software, including without limitation, tuning and set point constants, graphical, pictorial and text files, that configure the Software for the specific Unit environment.

(d) "Disabling Code" shall mean any timer, clock, counter, time lock, time bomb, other limiting code, design, instruction or routine which is designed or intended to do any of the following either automatically or without the intentional action of a Permitted User: (i) erase data or other programming, or (ii) damage, destroy, disable, suspend the operation of, or alter the operation of the Software, or any components thereof, or (iii) cause the Software or any components thereof to become inoperable or otherwise incapable of being used in the full manner for which the Software is licensed hereunder.

(e) "Escrow Agent" shall mean Business Records Management, Inc. or any replacement escrow agent as mutually agreed between Contractor and Owner.

(f) "Escrow Agreement" shall mean the escrow agreement in the form attached hereto as Tab-1 entered into by and among Owner, Contractor, and the Escrow Agent, as the same may be amended or replaced from time to time.

(g) "Facility" or "Unit" shall refer to the Facility or a Unit of the Facility as defined in the Agreement.

(h) "Hardware" shall mean (i) the hardware on which the Software is initially installed by Contractor or Subcontractors for use in connection with the Facility, including, without limitation, hardware at the Facility, redundant systems, training and test systems and simulators associated with the Facility whether located at the Facility or another site owned or leased by Owner or over which Owner otherwise has possession or control and (ii) replacements and additional hardware as permitted under Section 2(a)(iii).

(i) "Permitted Use" shall mean use solely in connection with the Facility, including but not limited to for the purpose of design, construction and installation of the Facility, simulator and ancillary facilities, trouble-shooting, response to plant events, inspection, evaluation of system or component performance, scheduling, investigations, initial fuel loading, refueling, operation, management, procurement, maintenance, testing, training, repair, licensing, modification, decommissioning, testing of redundant systems, training systems and training simulators associated with the Facility, training Permitted Users and their employees, ensuring the safety of the Facility, simulator and ancillary facilities, and compliance with Laws or Government Authorities.

(j) "Permitted Users" shall mean Owner, its employees, Owner's Engineer, secunded employees, and staff augmentation contractors through multiple tiers, and their respective employees, which employees or contractors have executed a written confidentiality agreement substantially as set forth in Exhibit O-1 of the Agreement (Proprietary Data Agreement) or are otherwise under an obligation or duty to Owner or to the contractor to maintain the confidentiality of Owner's or Owner's suppliers' proprietary information.

(k) "Software" shall mean the computer programs, procedures, rules or routines embodied in computer programs, databases and related computer files provided to Owner by one or more of the Consortium Members or Subcontractors in performance of the Work, as furnished and as installed, and Application Software developed by one or more of the Consortium Members for Owner during the performance of this License Agreement. Software shall also mean bug fixes, error-correct releases, updates, upgrades, enhancements, modifications, changes, new versions and replacements thereof if provided from time to time by or on behalf of one or more of the Consortium Members or Subcontractors. Software includes:

(i) "*Base Software*", which consists of a) software that provides performance analysis, monitoring, and interfaces for the Facility's basic systems, b) software that supplies the foundation upon which the Application Software functions to provide control, monitoring and maintenance of the Facility systems and processes, and c) software tools used to generate the Application Software, including, without limitation, tools used to generate or modify control software (function blocks, control algorithms, rules, and the like), operator graphics and database entries.

(ii) "*Application Software*", which consists of all of the Software other than Base Software and Third-Party Software, including, without limitation, software developed for the project-specific implementation of the Unit requirements using the objects and tools of the Base Software and/or Third-Party Software that provides means for controlling, monitoring and maintaining the system and process of the Unit. The Application Software is specific to a particular Unit.

(iii) "*Third-Party Software*", which consists of that portion of the Software which is developed and owned by a third party ("Third Party").

Except for purposes of Subsections 4(b), (c) and (d), the term Software shall include all software in the possession or control of any Consortium Member that would fall within the definition of Software under this Subsection 1(k) above and be Available Software, except for the fact that it has not yet been provided to Owner or furnished, installed or completely developed; provided, however, the obligation to place any such Software in escrow shall be governed by Section 7 below.

(l) "Software Documentation" shall mean any materials created by or on behalf of Contractor or its licensors, or by Third Parties, that describe or relate to the functional, operational, or performance capabilities of the Software regardless of whether such materials be in written, printed, electronic or other format, and all of which shall be consistent, in both form and substance, with Consortium Member's quality management system standards, industry standard for software documentation and be generally acceptable to Contractor's North American customers.

2. **Licenses.**

(a) Software License. Each Consortium Member hereby grants to Permitted Users a fully paid-up, royalty-free, non-exclusive, transferable and assignable (solely as provided in Section 9 below), perpetual (except in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement), irrevocable and non-terminable (except in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement) right and license to use the Software on the Hardware for Permitted Use. Third-Party Software may be licensed on a pass-through or sublicense basis as further described in Section 2(d) herein. Owner may allow other Permitted Users to use the Software solely for Permitted Use during the term of employment or during time of performance of services related to the Facility. Without limiting the foregoing, the license granted herein shall include the specific rights to:

(i) adapt and otherwise modify the Application Software, provided, however, if any Permitted User makes any modifications to the Application Software outside of the scope of those modifications allowed by the features and functionalities available in the Software as delivered to Owner and consistent with plant design and safe operations as reflected in Facility Documentation without the prior written authorization of the Westinghouse then currently-assigned designated contact or the Stone & Webster then currently-assigned designated contact, as applicable, Contractor shall not have any warranty liability for any breach of any warranty caused by such modification to the Application Software;

(ii) make a reasonable number of copies of the Software solely for back-up, archival, testing, installation, maintenance, operation or disaster-recovery purposes, provided that any copyright or other proprietary rights notices included in the Software are also reproduced in such copies. Notwithstanding the above, copies of Third-Party Software may be made solely as allowed per the associated Third Party license. For Third-Party Software license agreements not executed prior to the date of the Agreement, the applicable Consortium Member agrees to make commercially reasonable efforts to negotiate terms related to the number of copies of Third-Party Software that may be made by Owner that are

no less beneficial to Owner than the terms of the first sentence of this subsection (ii). Notwithstanding the above, Third-Party Software license agreements not executed prior to the date of the Agreement do not include purchase orders that are placed after execution of the Agreement on Third-Party Software Vendors under pre-existing agreements executed prior to the execution of the Agreement; and

(iii) install the Software or any portion thereof on hardware that possesses functionality that is equivalent to the functionality of the initial Hardware and includes the applicable designated equipment configuration, if any, as shown in Documentation (referred to herein as "New Hardware") for use in connection with the Facility, provided that the Software or portion as installed on such New Hardware is used only for Permitted Use and the Software is uninstalled from or otherwise rendered inoperable on any Hardware that the New Hardware replaces. The right to install specific Third-Party Software as described in this subsection (iii) shall be governed by terms of the Third-Party Software license agreement. For Third-Party Software license agreements not executed prior to the date of the Agreement, the applicable Consortium Member agrees to make commercially reasonable efforts to negotiate terms related to Owner's transfer of Third-Party Software to new Hardware that are no less beneficial to Owner than the terms of the first sentence of this subsection (iii). Notwithstanding the above, Third-Party Software license agreements not executed prior to the date of the Agreement do not include purchase orders that are placed after execution of the Agreement on Third-Party Software Vendors under pre-existing agreements executed prior to the execution of the Agreement.

(b) Software License Restrictions. Except as may be otherwise provided herein or in a subsequent written agreement with the applicable Consortium Member or with an owner or licensor of any Third-Party Software:

(i) Owner shall not alone or with the assistance of others, reverse compile or in any other manner attempt to decipher in whole or in part the logic or coherence of any Base Software provided hereunder in only object-code or machine-readable form, except (1) as allowed under 17 USC Sec. 1201(f) for which Consortium Member hereby grants a limited license to Owner solely for the purpose of enabling interfacing and interoperability between Software and any hardware or other software, or (2) if, upon the occurrence of an event defined in Section 22.2(a)(iv) of the Agreement and the termination of the Agreement, the Escrow Agent fails to timely deliver the Source Code pursuant to the terms and conditions of the Escrow Agreement. Notwithstanding the foregoing, Owner may, alone or with the assistance of others, reverse compile or otherwise decipher Software created solely by one or more Consortium Members for the sole purpose of debugging the Software after, if reasonable under the then prevailing circumstances, providing written notice to the applicable Consortium Member and a commercially reasonable amount of time under the then prevailing circumstances for the applicable Consortium Member to provide a solution prior to such reverse compiling or deciphering.

(ii) Except as may be required by law, including, without limitation, by any Government Authority, Owner shall not use the Software for purposes of (A) performing a quality assurance program verification of any computer program other than the Software, or (B) using the input or output of the Software to qualify, validate, or provide credibility to any other software not provided under the Agreement or this License Agreement and disclose the results to any third party other than a Government Authority without the prior written consent of Contractor. For the avoidance of doubt, Owner shall have the right to use the input or output of the Software and any information obtained from Facility instrumentation through the use of the Software and/or Configuration Data for any Permitted Use and for ordinary business uses related to the Facility, including, without limitation, reporting to investors, supporting offerings of equity and/or debt, and required government reporting.

(c) Software Documentation Use and Restrictions. Contractor hereby grants to Owner a , fully paid-up, royalty-free, non-exclusive, transferable and assignable (as provided in Section 9 below),perpetual (except in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement), irrevocable and non-terminable (except in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement), right and license to reproduce and distribute to Permitted Users Software Documentation for Permitted Use. For Third-Party Software license agreements not previously executed prior to the date of the Agreement, the applicable Consortium Member agrees to make commercially reasonable efforts to obtain from Third-Party Software Vendors, reproduction and distribution terms for the number of copies of Software Documentation that the Owner reasonably requests. Notwithstanding the above, Third-Party Software license agreements not executed prior to the date of the Agreement do not include purchase orders that are placed after execution of the Agreement on Third-Party Software Vendors under pre-existing agreements executed prior to the execution of the Agreement.

(d) Third-Party Software Provisions. Third-Party Software listed in Exhibit O-2 of the Agreement is the Third-Party Software that shall be provided, at a minimum, and is provided on a pass-through or sublicense basis and may be subject to the separate license agreements or registration requirements and limitations on copying and use as will be furnished by a Consortium Member to Owner prior to or with the delivery of the applicable Third-Party Software, and Owner agrees to be bound by the terms of any such third-party license agreements.

(e) Other Computer Programs. Nothing in the Agreement shall prohibit Owner from using the Equipment to run computer programs other than the Software or from using the Equipment for purposes other than operation of the Facility, it being understood that Contractor shall not be responsible for any failure of the Software or Equipment as a result of such activities, or from loading such computer programs on, or removing such computer programs from, the Facility.

3. **Delivery, Installation and Acceptance of the Software.** The applicable Consortium Member shall deliver, install and test the Software and Configuration Data, and Owner shall accept the Software and Configuration Data, in accordance with the Project Schedule.

4. **Representations and Warranties**. Contractor represents and warrants the following:

(a) Licensing Rights. The applicable Consortium Member owns all rights, title and interest

in and to the Software, Software Documentation and training materials (excluding Third-Party Software and associated documentation and training materials) or otherwise has the legal right to transfer, grant, sublicense, and/or pass-through the rights and licenses in the Software, Software Documentation and training materials granted by the applicable Consortium Member as provided in this License Agreement. For pass-through rights, Third-Party Software and associated documentation and training materials are licensed directly from the Third-Party Software developer to Owner as end user for the Permitted Use.

(b) Software Performance. For the Equipment Warranty time period specified in section 14.1(a)(ii) of the Agreement, after the Substantial Completion of each Unit (the "Software Warranty Period") the Software and Configuration Data for that Unit shall: (i) be compatible with and capable of operating in conjunction with all other software and hardware if indicated in the Software Documentation or if recommended in writing by the applicable Consortium Member; and (ii) conform to and perform substantially in accordance with the Software Documentation; and (iii) to the extent used to operate the Facility shall do so without error (other than errors that do not affect the operation or safety of the Facility or any Unit) or unplanned interruption. The applicable Consortium Member shall, upon written notice from Owner and within a commercially reasonable time thereafter in view of the impact of defect, nonconformity, incompatibility, or other condition which breaches the foregoing warranty on the operations or safety of the Facility, at no additional charge and at its own cost and expense, correct any defects, nonconformities, incompatibilities, or other condition which breaches the foregoing warranty, and repair, replace and maintain the Software in compliance with the warranty standards set forth herein, including providing, all error-correcting releases identified during the Software Warranty Period; provided, however, that no such defect, nonconformity, incompatibility or other condition is due to Owner's misuse of the Software or Hardware. If the applicable Consortium Member is unable to correct any defect, nonconformity, incompatibility or other condition which breaches the foregoing warranty within a commercially reasonable time in view of the impact of the defect on the operations of the Facility, the applicable Consortium Member shall as soon as commercially reasonable replace such Software without charge and at its own cost and expense. If the applicable Consortium Member is unable to correct or replace any Software or portion thereof that is defective, nonconforming or incompatible or that otherwise breaches the above warranty, then the applicable Consortium Member shall propose another alternative remedy, which may include, without charge and at Consortium Member's own cost and expense, alternate Hardware that is commercially reasonable from Owner's perspective. The applicable Consortium Member shall not be liable for failure to meet the foregoing warranty if adaptations or modifications made to the Software by Owner or others on Owner's behalf without written authorization, acceptance, or approval from the Westinghouse then currently-assigned designated contact or the Stone & Webster then currently-assigned designated contact, as applicable, are outside the scope of those modifications allowed by the features and functionalities available in the Software as delivered to Owner or are inconsistent with plant design and safe operations as reflected in Facility Documentation, cause such failure. For the purpose of this Section 4(b), Software shall only refer to software developed in whole or in part by or on behalf of one or more Consortium Members. Third-Party Software shall be governed by Third-Party Software license

(c) Media. The media on which the Software, Configuration Data and Software Documentation are recorded shall be free from defects in material and workmanship for the Software Warranty Period set forth in (b) above. The applicable Consortium Member will, at no additional charge and at its cost and expense, replace any defective media within a commercially reasonable time in view of the impact of defect on the operations or safety of the Facility.

(d) None of the Software created by one or both Consortium Members will contain any Disabling Code and none of the Software as and when delivered and installed by or on behalf of one or more Consortium Members shall contain any Disabling Code. Notwithstanding withstanding the foregoing, certain of the Third-Party Software may be provided in a format that contains features and

functionalities that are not intended to be licensed or otherwise made available to Owner and are effectively hidden, turned off and not available to Owner and are not part of the Software (such features and functionalities collectively referred to herein as the "Turned-Off Software"). Provided that the Turned Off Software and the features and functionalities that makes such software unavailable to Owner do not interfere with the operation of the Software, such Turned-Off Software and the features and functionalities that makes the Turned-Off Software unavailable shall not be deemed Disabling Code. Under separate written agreement signed by both parties, the parties may agree to a temporary license of software with a limited time.

5. **Intellectual Property Indemnity.** (a) The applicable Consortium Member will, at its own cost and expense, defend (or at its option subject to Subsection 5(b), settle) and shall indemnify and hold Owner and each Permitted User harmless from and against any claim, suit, action or proceeding brought against Owner or any Permitted User to the extent based on an allegation that the Software in the form as provided by or on behalf of or authorized or approved by the applicable Consortium Member, or any part thereof furnished hereunder, or the use thereof within the scope of this License Agreement, constitutes an infringement, violation, or arises from or involves the misappropriation of any patent, copyright right, trademark, trade secret or other property right or intellectual property right enforceable in the United States, Canada or a European Union country, if the applicable Consortium Member is notified promptly in writing after Owner becomes aware of such claim, suit, action or proceeding and given authority, information, and assistance for the defense of any such suit or proceeding. The applicable Consortium Member will indemnify and save Owner and each Permitted User harmless from all damages, liabilities, losses, fees (including, without limitation, reasonable attorney fees), costs, and expenses incurred by Owner and each Permitted User in connection with any such claim, suit, action or proceeding, or awarded in any such suit, action, or proceeding. The applicable Consortium Member will not be responsible for any settlement of such suit, action, or proceeding made without its prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld. If the use of the Software or any part thereof furnished hereunder, as a result of any such suit, action, or proceeding is held to constitute infringement or misappropriation and its use by Owner is in any manner enjoined or restrained, The applicable Consortium Member will, at its option and at its own cost and expense, either: (i) procure for Owner the right to continue using said Software or part thereof; (ii) replace same with substantially equivalent non-infringing Software; or (iii) modify same so it becomes non-infringing while remaining substantially equivalent features and functionalities.

(b) The applicable Consortium Member shall not compromise or settle any claim, action, suit or proceeding in which an Owner is named without Owner's prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld unless such settlement provides for the payment of money only by the applicable Consortium Member and provides for a full, complete and unconditional release of Owner and each Permitted User.

(c) The applicable Consortium Member will have no indemnity duty or obligation hereunder to the extent that (i) the Software furnished hereunder is supplied pursuant to a design or drawing prepared by Owner, (ii) the Software is modified by Owner or at Owner's direction to make it infringing, or (iii) the Software is combined by Owner with items not furnished hereunder or recommended, approved or authorized by the applicable Consortium Member in writing, and as to (i), (ii) and (iii) above a suit or proceeding is brought against Owner solely as a result of (and no infringement would have occurred but for) said design, instruction, modification, or combination. In the event such a suit or proceeding is brought against Contractor as a result of such Owner actions, Owner will indemnify and save the applicable Contractor harmless to the same extent as Contractor has agreed to indemnify and save Owner harmless hereunder as provided in Section 5(a), provided that Owner will not be responsible for any settlement of any such suit or proceeding made without Owner's prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld. Upon the applicable Consortium

Member's written request, Owner shall, with respect to the Software that is the subject of or related to a claim of infringement, provide to such Consortium Member a copy of the related source code that is then in Owner's possession or control, if any.

6. **Proprietary Rights.**

(a) Except for the licenses granted herein, all rights, title and interests in and to the Base Software, Software Documentation, Third-Party Software and Application Software (subject to Section 6(b) below), including without limitation, all applicable copyrights, patents and trade secrets shall remain exclusively with the applicable Consortium Member or it licensors.

(b) All rights, title and interests in and to (i) any new material subject to patent, trade secret, or copyright protection added to the Software by or on behalf of Owner and (ii) the Configuration Data created by Owner, shall be exclusively owned by Owner. Owner hereby grants Consortium Members a fully paid-up, royalty-free, non-exclusive, transferable and assignable (as provided in Section 9 below) perpetual (except for in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement), irrevocable and non-terminable (except for in connection with the simultaneous or earlier termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement) right and license to use such new material added to the Software and the Configuration Data solely in support of the Facility. Owner shall provide a copy of all such Software to Consortium Member upon reasonable request. Owner retains the right to inspect and copy all Software during regular business hours.

(c) All rights, title and interests in and to any Application Software developed by Contractor or at Contractor's written instruction for Owner during the performance of the Agreement shall be exclusively owned by the applicable Consortium Member.

(d) To the extent there are any conflicts between any of the provisions of this Article 6 of Exhibit M-1 and Article 19 of the Agreement, the provisions of this Article 6 shall take precedence.

7. **Source Code Escrow.** (a) At the request of Owner, the applicable Consortium Member shall deposit with the Escrow Agent pursuant to the Escrow Agreement the source code associated with Available Software, which source code has not been provided directly to Owner, and, Software that is not then Available Software, promptly after such Software becomes Available Software, or if earlier, as required under Section 7(b), and with each such deposit a copy of the then available Software Documentation for such Software. Such deposits shall be made within a commercially reasonable time after Owner's request or such Software becomes Available Software or, if earlier, as provided under Section 7(b).

(b) If requested by Owner, the applicable Consortium Member shall on June 1, 2011 or within a commercially reasonable time thereafter not to exceed 30 days and on each June 1st thereafter (or on the first business day thereafter), deposit with the Escrow Agent under the Escrow Agreement for all Software developed or being developed by or on behalf of such Consortium Member the source code in existence as of May 1 of such year whether or not the corresponding Software has been completed, provided, however, it is understood that for purposes of this Section (b), the term "Software" does not include Third-Party Software

(c) Source Code Release. Each Consortium Member agrees that in the event (i) it fails to cure a material breach of its software warranty obligations for a specific item of software or (ii) the occurrence of an event under Section 22.2(a)(iv) of the Agreement and termination of the Agreement, then upon Owner's written request, the Escrow Agent shall be authorized to immediately deliver to

Owner with respect to (i) above, a copy of the source code then held by the Escrow Agent for the specific item of Software at issue, and with respect to (ii) above, all of the source code then held in escrow pursuant to the Escrow Agreement, and in each case the corresponding Software Documentation.

(d) Owner shall pay all regular costs and fees charged by the Escrow Agent (as opposed to fees and costs if any dispute arises) with respect to the above escrow and all reasonable Contractor related costs, on a Time and Material basis, for providing and updating the deposits of source code as provided above.

8. **Bankruptcy Section 365(n).** Contractor acknowledges and agrees that this Software License creates no presumption that Contractor or any trustee or other fiduciary of Contractor entitled to reject or terminate this Software License under applicable Law. Contractor acknowledges that if Contractor as a debtor in possession or a trustee in Bankruptcy ("**Bankruptcy Trustee**") in a case under the United States Bankruptcy Code rejects this Software License, Owner may elect to retain its rights under this Software License as provided in Section 365(n) of the United States Bankruptcy Code. Upon written request of Owner to Contractor or the Bankruptcy Trustee, Contractor or such Bankruptcy Trustee shall not interfere with the rights of Owner as provided in this Software License, including without limitation, the right to use or make available the Software and Documentation.

9. **Assignment.** Neither Party will be entitled (in whole or in part) to assign this License Agreement or its rights hereunder or to delegate or subcontract its obligations hereunder without the express written consent of the other Party hereto; provided, however, that Owner shall have the right without the consent of Contractor or any third party to assign, any and all of its rights under this Software License to any party in connection with any transfer of ownership or control of the Facility. Notwithstanding the above, assignments rights for Third-Party Software shall be subject to the terms of the associated Third-Party Software license. Any assignment or transfer in violation of this License Agreement will be null and void. This License Agreement and the rights and obligations of either Party hereto will be binding upon and will inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

IN WITNESS WHEREOF, the Parties have duly executed this License Agreement as of the date first above written.

SOUTH CAROLINA ELECTRIC & GAS COMPANY, for itself and as agent for South Carolina Public Service Authority
By: _____
Name: _____
Title: _____

STONE & WEBSTER, INC.

By: _____
Name: _____
Title: _____

WESTINGHOUSE ELECTRIC COMPANY LLC

By: _____
Name: _____
Title: _____

EXHIBIT M-2
AP1000 Intellectual Property License (WEC)

This intellectual property license agreement (this "License Agreement") is entered into as of the _____ day of May, 2008, by and between South Carolina Electric & Gas Company ("SCE&G"), for itself and as agent for the South Carolina Public Service Authority, a body corporate and politic created by the laws of South Carolina ("Santee Cooper") pursuant to the Limited Agency Agreement between SCE&G and Santee Cooper dated _____, 2008, and WESTINGHOUSE ELECTRIC COMPANY LLC, a Delaware limited liability company having a place of business in Monroeville, Pennsylvania ("Westinghouse").

1. Definitions. For purposes of this License Agreement, the terms listed below shall have the meanings indicated beside them. Capitalized terms not otherwise defined below shall have the meanings ascribed to them in the Engineering, Procurement and Construction Agreement between South Carolina Electric & Gas Company, for itself and as agent for the South Carolina Public Service Authority, and a consortium consisting of Westinghouse and Stone & Webster, Inc., dated as of the date hereof (the "Agreement"). Except where the context otherwise requires, Westinghouse and Stone & Webster, Inc. hereinafter are individually referred to as a "Consortium Member" and collectively as "Contractor".

(a) "Facility" or "Unit" shall refer to the Facility or a Unit of the Facility as defined in the Agreement.

(b) "Intellectual Property Rights" shall mean any and all intellectual or industrial property rights owned by Westinghouse, or which Westinghouse has the rights to transfer, sublicense or pass through, related to the Facility Documentation necessary for a Qualified Entity to utilize the Facility Documentation for Unit Completion Purposes, including, without limitation, all inventions, processes, designs or plans protected under Title 35 of the United States Code; patent applications; trade secrets, works of authorship protected under Title 17 of the United States Code; and any intellectual or industrial property rights inextricably tied to or related to such Facility Documentation; including, the rights to reproduce, display, create derivative works, create improvements, enhancements, and modifications. Intellectual Property Rights shall not include the right to: (i) sue for infringement or (ii) sublicense or sell except as expressly permitted in this License Agreement, including, without limitation, under Sections 2(c) and 8, or (iii) reproduce Facility Documentation that is subject to licensing restrictions.

(c) "Qualified Entity" shall mean a contractor, supplier or other entity that has ,as recognized in the nuclear industry, the capability and experience to design and construct a nuclear power plant and that has entered into a confidentiality agreement that complies with the applicable requirements under Section 2 (c).

(d) "M-2 Triggering Event" shall mean the occurrence of one or more of the events described under Section 22.2(a) and the subsequent termination of the Agreement.

(e) "Unit Completion Purposes" means solely for purposes of Facility (and associated simulator) including, without limitation, design, construction and installation of the Facility, the simulator, and ancillary facilities, trouble-shooting, response to plant events, inspection,

evaluation of system or component performance, scheduling, investigations, initial fuel loading, refueling, management, procurement, operation, maintenance, testing, training, repair, licensing, modification, decommissioning, ensuring the safety of the Facility, simulator and ancillary facilities and compliance with Laws or Government Authorities solely through the equivalent of Substantial Completion plus two years.

2. Licenses.

(a) Intellectual Property License. Westinghouse hereby grants to Owner an assignable and transferable (solely as provided in Section 8 below) royalty-free, fully paid up, irrevocable (except in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement), nonexclusive right and license to use the Facility Documentation and the Intellectual Property Rights therein solely for Unit Completion Purposes.

(b) Third Party Facility Documentation. Facility Documentation licensed by Westinghouse from Subcontractors or third parties shall be licensed on a pass-through or sublicensing basis. Such transactions may be subject to the separate contractual or license agreements and limitations on copying and use, and Owner agrees to and shall be bound by the terms of any such third-party contractual or license agreements.

(c) Sublicense Rights. Owner may sublicense the Facility Documentation and the Intellectual Property Rights therein to one or more Qualified Entities solely for Unit Completion Purposes; provided, however, that Owner agrees not to grant any such sublicense unless at some time after the issuance of a Full Notice to Proceed but prior to achieving Substantial Completion, a M-2 Triggering Event occurs, and provided further, however, that prior to entering into each such sublicense and prior to disclosure of Facility Documentation to any Qualified Entity, Owner shall notify Westinghouse of the identity of the Qualified Entity and the Qualified Entity shall enter into a confidentiality agreement largely in conformance with the Proprietary Data Agreement set forth in Exhibit O-1 to the Agreement. Any sublicense shall be in writing and shall identify Westinghouse as the owner or licensee of the Facility Documentation, as applicable. A fully executed copy of such sublicense shall be provided to Westinghouse. Owner agrees that neither it nor any of its employees, agents and/or others over which it has control shall disclose any Facility Documentation to any third party, except as may be otherwise expressly allowed by this License Agreement or provided in the Agreement or applicable confidentiality or non-disclosure agreement.

(d) Improvements. Westinghouse, to the extent required for Owner to make changes, modifications, enhancements and improvements, grants Owner the right to make changes, modifications, enhancements, and improvements to the Facility Documentation and the Intellectual Property Rights therein, and to create derivative works of the foregoing (collectively referred to as "Improvements"), and to use such Improvements solely for Unit Completion Purposes. Any new material created by Owner incorporated into such Improvements and all intellectual property rights therein shall be owned by Owner and Owner shall, upon written request of Westinghouse, grant to Westinghouse a non-exclusive, worldwide, perpetual, assignable and transferable (but only as set out in Section 8), irrevocable right and license to use any and all such Improvements upon such commercially reasonable terms and conditions as the

parties may agree. For the avoidance of doubt, this paragraph is not intended to assign or transfer ownership or otherwise give up any right in and to the Facility Documentation or the Intellectual Property Rights therein that may be incorporated into or used in conjunction with the Improvements or to permit Owner or any other Third Party to use Facility Documentation except as provided for in this License Agreement.

(e) Documentation. Upon Owner's request at any time after the occurrence of an M-2 Triggering Event, Westinghouse shall provide to Owner, at reasonable copying and delivery cost to Owner but at no other cost or expense to Owner, a copy of all Facility Documentation. Upon Westinghouse's written request and the execution of the right and license contemplated under (d) above, Owner agrees to provide Westinghouse a copy of any manuals and like materials created and used by Owner with respect to the Improvements and any know how related to the Improvements.

3. Representations and Warranties. Westinghouse represents and warrants that Westinghouse owns all rights, title and interest (or otherwise has the necessary rights to transfer and/or grant the rights provided for herein) in the Facility Documentation and the Intellectual Property Rights therein that are in existence on the date hereof and will take all commercially reasonable steps necessary to ensure that it owns all rights, title and interest in (or otherwise has the legal right to transfer and/or grant the licenses provided for herein) the Facility Documentation and the Intellectual Property Rights therein that comes into existence after the date hereof or that it uses with respect to the Facility and that it would be obligated to license and transfer to Owner under this License Agreement.

4. Intellectual Property Indemnity. (a) Westinghouse will, at its own cost and expense, defend (or at its option subject to Subsection 4(b), settle) and shall indemnify and hold Owner or any Qualified Entity harmless from and against any and all claims, demands, costs, suits, actions, proceedings, fines and penalties (and interest thereon) brought against Owner or any Qualified Entity to the extent based on an allegation that the Facility Documentation or any of the Intellectual Property Rights therein, or any part thereof furnished hereunder, or the use thereof in a manner contemplated by this License Agreement, constitutes an infringement, violation, or arises from or involves the misappropriation of, any patent, trademark, copyright, trade secret or other property right or intellectual property right, or any other similar intellectual property protection enforceable in the United States, Canada, or a European Union country, if Westinghouse is notified promptly in writing and given authority, information, and assistance for the defense of any such suit or proceeding. Westinghouse will indemnify and save the Owner or any Qualified Entity harmless from all damages, liabilities, losses, fees (including, without limitation, reasonable attorney fees), costs, and expenses incurred by Owner or any Qualified Entity in connection with any such claim, suit, action or proceeding, or awarded in any such suit, action, or proceeding. Westinghouse will not be responsible for any settlement of such suit, action, or proceeding made without its prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld. If the use of the Facility Documentation or any of the Intellectual Property Rights therein or any part thereof furnished hereunder, as a result of any such suit, action, or proceeding is held to constitute infringement or misappropriation and its use by the Owner or any Qualified Entity is in any manner enjoined or restrained, Westinghouse will, at its option and at its own cost and expense, either: (i) procure for the Owner or any Qualified Entity the right to continue using said Facility Documentation and the Intellectual

Property Rights therein or part thereof, as contemplated under this License Agreement; (ii) replace same with substantially equivalent noninfringing Facility Documentation and the Intellectual Property Rights therein; or (iii) modify same so it becomes non-infringing while remaining substantially equivalent features and functionalities.

(b) Westinghouse shall not compromise or settle any claim, action, suit or proceeding in which an Owner is named without Owner's prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld, unless such settlement provides for the payment of money only by Westinghouse and provides for a full, complete and unconditional release of Owner and each Qualified Entity.

(c) Westinghouse will have no indemnity duty or obligation hereunder to the extent that (i) the Facility Documentation furnished hereunder is supplied pursuant to a design or drawing prepared by the Owner or any Qualified Entity, (ii) Facility Documentation, is modified by the Owner or any Qualified Entity to make it infringing, or (iii) the Facility Documentation is combined by the Owner or any Qualified Entity with items not furnished hereunder or recommended, approved, or authorized in writing by Westinghouse, and as to (i), (ii) and (iii) above a suit or proceeding is brought against the Owner or any Qualified Entity solely as a result of (and no infringement would have occurred but for) said design, instruction, modification, or combination. In the event such a suit or proceeding is brought against Westinghouse as a result of such Owner or Qualified Entity actions, Owner will indemnify and save Westinghouse harmless to the same extent as Westinghouse has agreed to indemnify and save Owner or any Qualified Entity harmless hereunder as provided in Section 5(a); provided that Owner will not be responsible for any settlement of any such suit or proceeding made without Owner's prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld.

(d) Owner hereby releases and agrees to defend and indemnify Westinghouse and its Subcontractors from and against any and all third party ("third party" not to include any Subcontractor, Consortium Member or other third party to whose Facility Documentation and Intellectual Property Rights therein Owner is granted a license and right under Section 2(a)) claims, demands, costs, suits, actions, proceedings, fines and penalties (and interest thereon) brought against Westinghouse or its Subcontractors that (i) any Improvement as used by Owner or any Qualified Entity, or (ii) any use by Owner or any Qualified Entity of the Facility Documentation in a manner not contemplated by this License Agreement, results in an infringement, or claim of infringement, of any patent, trademark, copyright or other third party intellectual property right, or any other similar intellectual property protection enforceable in the United States, Canada, or a European Union country, if Owner is notified promptly in writing and given authority, information, and assistance for the defense of any such suit or proceeding.

EXCEPT AS PROVIDED ABOVE, WESTINGHOUSE MAKES NO WARRANTIES AND OWNER HEREBY WAIVES ANY CLAIM FOR LIABILITY AND ANY EXPRESS OR IMPLIED WARRANTY OF ANY KIND RELATED TO THE FACILITY DOCUMENTATION OR THIS INTELLECTUAL PROPERTY LICENSE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY OR NON-INFRINGEMENT.

OWNER MAKES NO WARRANTIES AND WESTINGHOUSE HEREBY WAIVES ANY CLAIM FOR LIABILITY AND ANY EXPRESS OR IMPLIED WARRANTY OF ANY KIND RELATED TO ANY AND ALL IMPROVEMENTS, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY OR NON-INFRINGEMENT.

THIS IS AN EXCLUSIVE STATEMENT RELATING TO FACILITY DOCUMENTATION AND THE INTELLECTUAL PROPERTY RIGHTS THEREIN AND IMPROVEMENTS RIGHTS PURSUANT TO THIS LICENSE AGREEMENT AND ALL THE REMEDIES OF THE PARTIES RELATING THERETO.

5. Proprietary Rights. (a) Except for the licenses granted herein, all rights, title and interests in and to the Facility Documentation and Intellectual Property Rights therein shall remain exclusively with Westinghouse or it licensors.

(b) All rights title and interests in and to any new material subject to patent, trade secret, or copyright protection added to the Facility Documentation or the Intellectual Property Rights therein by or on behalf of the Owner shall be exclusively owned by the Owner. Owner hereby grants Contractor a perpetual, fully paid-up, royalty-free, non-exclusive, transferable, and assignable (as provided in Section 8 below) irrevocable and non-terminable (except for in connection with the simultaneous termination of the Agreement) right and license to use such new material added to the Facility Documentation solely in support of the Facility.

(c) To the extent there are any conflicts between any of the provisions of this License Agreement and Article 19 of the Agreement, the provisions of this License Agreement shall control.

6. Escrow of Facility Documentation. Contemporaneously with the execution and delivery of this License Agreement, Westinghouse and Owner shall enter into an Escrow Agreement, with verification rights, by and among Westinghouse, Owner and a third party commercial escrow agent reasonably acceptable to both Westinghouse and Owner (the "Escrow Agreement"). Within a commercially reasonable time after entering into the Escrow Agreement and the receipt of Owner's written request, Westinghouse shall place in escrow under the Escrow Agreement, the Facility Documentation then in existence, or, as reasonably agreed to by the parties, a detailed description and listing of the Facility Documentation then in existence (the "Escrowed Materials"). On a periodic basis thereafter, Westinghouse shall place in escrow such additional documentation and materials that have become a part of the Facility Documentation since the last deposit into the Escrowed Materials or, as reasonably agreed to by the parties, a detailed description and listing of such additional Facility Documentation. Owner shall be entitled to receive a copy of the Escrowed Materials upon request to the Escrow Agent, without any further action by Westinghouse, upon and at any time after the occurrence of an M-2 Triggering Event. Owner shall pay all regular costs and fees charged by the Escrow Agent (as opposed to fees and costs if any dispute arises) with respect to the above escrow and all reasonable Contractor related costs, on a Time and Material Basis, for providing and updating the deposits of Facility Documentation as provided above.

7. Bankruptcy Section 365(n). Westinghouse acknowledges and agrees that this License Agreement creates no presumption that Westinghouse or any trustee or other fiduciary of Westinghouse is entitled to reject or terminate the Agreement or this License Agreement under applicable Law. Westinghouse acknowledges that if Westinghouse as a debtor in possession or a trustee in Bankruptcy ("Bankruptcy Trustee") in a case under the United States Bankruptcy Code rejects the Agreement or this License Agreement, Owner may elect to retain its rights under this License Agreement as provided in Section 365(n) of the United States Bankruptcy Code. Upon written request of Owner to Westinghouse or the Bankruptcy Trustee, Westinghouse or such Bankruptcy Trustee shall not interfere with the rights of Owner as provided in this License Agreement, including without limitation, the right to use or make available the Facility Documentation and the Intellectual Property Rights therein.

8. Assignment. Neither Party will be entitled (in whole or in part) to assign this License Agreement or its rights hereunder or to delegate or subcontract its obligations hereunder without the express written consent of the other Party hereto; provided, however, that Owner shall have the right without the consent of Westinghouse or any third party to assign or otherwise transfer any and all of its rights under this License Agreement to any party in connection with any assignment, sale or transfer of the Facility or any Unit or of control of the Facility or a Unit. Assignment of Third Party Intellectual Property shall be governed by the terms of the applicable Third Party license. Any assignment or transfer in violation of this License Agreement will be null and void. This License Agreement and the rights and obligations of either Party hereto will be binding upon and will inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

9. Subsequent to Substantial Completion. Notwithstanding any other provision of this License Agreement, this License Agreement shall terminate upon the equivalent of Substantial Completion plus two years, and at all times subsequent to the equivalent of Substantial Completion plus two years, all Facility Documentation and Intellectual Property Rights therein provided or otherwise made available to Owner under this License Agreement, shall, subject to the exceptions contained in the definition of the term Proprietary Data, be deemed Proprietary Data (unless otherwise denoted in writing as agreed to by the parties) and Owner shall have the rights and obligations with respect thereto as set forth in Article 19 of the Agreement.

IN WITNESS WHEREOF, the Parties have duly executed this License Agreement as of the date first above written.

SOUTH CAROLINA ELECTRIC & GAS COMPANY, for itself and as agent for South Carolina Public Service Authority

By:_____
Name:_____
Title:_____

WESTINGHOUSE ELECTRIC COMPANY LLC

By:_____
Name:_____
Title:_____

EXHIBIT M-3
AP1000 Intellectual Property License (S&W)

This intellectual property agreement (this "License Agreement") is entered into as of the _____ day of May, 2008, by and between South Carolina Electric & Gas Company ("SCE&G"), for itself and as agent for the South Carolina Public Service Authority, a body corporate and politic created by the laws of South Carolina ("Santee Cooper") pursuant to the Limited Agency Agreement between SCE&G and Santee Cooper dated _____, 2008, and STONE & WEBSTER, INC., a Louisiana corporation having a place of business in Charlotte, North Carolina ("Stone & Webster").

1. Definitions. For purposes of this License Agreement, the terms listed below shall have the meanings indicated beside them. Capitalized terms not otherwise defined below shall have the meanings ascribed to them in the Engineering, Procurement and Construction Agreement between South Carolina Electric & Gas Company, for itself and as agent for the South Carolina Public Service Authority, and a consortium consisting of Westinghouse Electric Company LLC and Stone & Webster, dated as of the date hereof (the "Agreement"). Except where the context otherwise requires, Westinghouse Electric Company LLC and Stone & Webster hereinafter are individually referred to as a "Consortium Member" and collectively as "Contractor".

(a) "Facility" or "Unit" shall refer to the Facility or a Unit of the Facility as defined in the Agreement.

(b) "Intellectual Property Rights" shall mean any and all intellectual or industrial property rights owned by Stone & Webster, or which Stone & Webster has the rights to transfer, sublicense or pass through, related to the Facility Documentation necessary for a Qualified Entity to utilize the Facility Documentation for Unit Completion Purposes, including, without limitation, all inventions, processes, designs or plans protected under Title 35 of the United States Code; patent applications; trade secrets, works of authorship protected under Title 17 of the United States Code; and any intellectual or industrial property rights inextricably tied to or related to such Facility Documentation; including, the rights to reproduce, display, create derivative works, create improvements, enhancements, and modifications. Intellectual Property Rights shall not include the right to: (i) sue for infringement or (ii) sublicense or sell except as expressly permitted in this License Agreement, including, without limitation, under Sections 2(c) and 8, or (iii) reproduce Facility Documentation that is subject to licensing restrictions.

(c) "Qualified Entity" shall mean a contractor, supplier or other entity that has ,as recognized in the nuclear industry, the capability and experience to design and construct a nuclear power plant and that has entered into a confidentiality agreement that complies with the applicable requirements under Section 2 (c).

(d) "M-3 Triggering Event" shall mean the occurrence of one or more of the events described under Section 22.2(a) and the subsequent termination of the Agreement.

(e) "Unit Completion Purposes" means solely for purposes of Facility (and associated simulator) including, without limitation, design, construction and installation of the Facility, the

simulator, and ancillary facilities, trouble-shooting, response to plant events, inspection, evaluation of system or component performance, scheduling, investigations, initial fuel loading, refueling, management, procurement, operation, maintenance, testing, training, repair, licensing, modification, decommissioning, ensuring the safety of the Facility, simulator and ancillary facilities and compliance with Laws or Government Authorities solely through the equivalent of Substantial Completion plus two years.

2. Licenses.

(a) Intellectual Property License. Stone & Webster hereby grants to Owner an assignable and transferable (solely as provided in Section 8 below) royalty-free, fully paid up, irrevocable (except in connection with the simultaneous termination of the Agreement pursuant to the terms and conditions of paragraph 22.3, 22.4 or 22.5 of the Agreement), nonexclusive right and license to use the Facility Documentation and the Intellectual Property Rights therein solely for Unit Completion Purposes.

(b) Third Party Facility Documentation. Facility Documentation licensed by Stone & Webster from Subcontractors or third parties shall be licensed on a pass-through or sublicensing basis. Such transactions may be subject to the separate contractual or license agreements and limitations on copying and use, and Owner agrees to and shall be bound by the terms of any such third-party contractual or license agreements.

(c) Sublicense Rights. Owner may sublicense the Facility Documentation and the Intellectual Property Rights therein to one or more Qualified Entities solely for Unit Completion Purposes; provided, however, that Owner agrees not to grant any such sublicense unless at some time after the issuance of a Full Notice to Proceed but prior to achieving Substantial Completion, a M-3 Triggering Event occurs, and provided further, however, that prior to entering into each such sublicense and prior to disclosure of Facility Documentation to any Qualified Entity, Owner shall notify Stone & Webster of the identity of the Qualified Entity and the Qualified Entity shall enter into a confidentiality agreement largely in conformance with the Proprietary Data Agreement set forth in Exhibit O-1 to the Agreement. Any sublicense shall be in writing and shall identify Stone & Webster as the owner or licensee of the Facility Documentation, as applicable. A fully executed copy of such sublicense shall be provided to Stone & Webster. Owner agrees that neither it nor any of its employees, agents and/or others over which it has control shall disclose any Facility Documentation to any third party, except as may be otherwise expressly allowed by this License Agreement or provided in the Agreement or applicable confidentiality or non-disclosure agreement.

(d) Improvements. Stone & Webster, to the extent required for Owner to make changes, modifications, enhancements and improvements, grants Owner the right to make changes, modifications, enhancements, and improvements to the Facility Documentation and the Intellectual Property Rights therein, and to create derivative works of the foregoing (collectively referred to as "Improvements"), and to use such Improvements solely for Unit Completion Purposes. Any new material created by Owner incorporated into such Improvements and all intellectual property rights therein shall be owned by Owner and Owner shall, upon written request of Stone & Webster, grant to Stone & Webster a non-exclusive, worldwide, perpetual, assignable and transferable (but only as set out in Section 8), irrevocable right and license to use

any and all such Improvements upon such commercially reasonable terms and conditions as the parties may agree. For the avoidance of doubt, this paragraph is not intended to assign or transfer ownership or otherwise give up any right in and to the Facility Documentation or the Intellectual Property Rights therein that may be incorporated into or used in conjunction with the Improvements or to permit Owner or any other Third Party to use Facility Documentation except as provided for in this License Agreement.

(e) Documentation. Upon Owner's request at any time after the occurrence of an M-3 Triggering Event, Stone & Webster shall provide to Owner, at reasonable copying and delivery cost to Owner but at no other cost or expense to Owner, a copy of all Facility Documentation. Upon Stone & Webster's written request and the execution of the right and license contemplated under (d) above, Owner agrees to provide Stone & Webster a copy of any manuals and like materials created and used by Owner with respect to the Improvements and any know how related to the Improvements.

3. Representations and Warranties. Stone & Webster represents and warrants that Stone & Webster owns all rights, title and interest (or otherwise has the necessary rights to transfer and/or grant the rights provided for herein) in the Facility Documentation and the Intellectual Property Rights therein that are in existence on the date hereof and will take all commercially reasonable steps necessary to ensure that it owns all rights, title and interest in (or otherwise has the legal right to transfer and/or grant the licenses provided for herein) the Facility Documentation and the Intellectual Property Rights therein that comes into existence after the date hereof or that it uses with respect to the Facility and that it would be obligated to license and transfer to Owner under this License Agreement.

4. Intellectual Property Indemnity. (a) Stone & Webster will, at its own cost and expense, defend (or at its option subject to Subsection 4(b), settle) and shall indemnify and hold Owner or any Qualified Entity harmless from and against any and all claims, demands, costs, suits, actions, proceedings, fines and penalties (and interest thereon) brought against Owner or any Qualified Entity to the extent based on an allegation that the Facility Documentation or any of the Intellectual Property Rights therein, or any part thereof furnished hereunder, or the use thereof in a manner contemplated by this License Agreement, constitutes an infringement, violation, or arises from or involves the misappropriation of, any patent, trademark, copyright, trade secret or other property right or intellectual property right, or any other similar intellectual property protection enforceable in the United States, Canada, or a European Union country, if Stone & Webster is notified promptly in writing and given authority, information, and assistance for the defense of any such suit or proceeding. Stone & Webster will indemnify and save the Owner or any Qualified Entity harmless from all damages, liabilities, losses, fees (including, without limitation, reasonable attorney fees), costs, and expenses incurred by Owner or any Qualified Entity in connection with any such claim, suit, action or proceeding, or awarded in any such suit, action, or proceeding. Stone & Webster will not be responsible for any settlement of such suit, action, or proceeding made without its prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld. If the use of the Facility Documentation or any of the Intellectual Property Rights therein or any part thereof furnished hereunder, as a result of any such suit, action, or proceeding is held to constitute infringement or misappropriation and its use by the Owner or any Qualified Entity is in any manner enjoined or restrained, Stone & Webster will, at its option and at its own cost and expense, either: (i) procure for the Owner or

any Qualified Entity the right to continue using said Facility Documentation and the Intellectual Property Rights therein or part thereof, as contemplated under this License Agreement; (ii) replace same with substantially equivalent noninfringing Facility Documentation and the Intellectual Property Rights therein; or (iii) modify same so it becomes non-infringing while remaining substantially equivalent features and functionalities.

(b) Stone & Webster shall not compromise or settle any claim, action, suit or proceeding in which an Owner is named without Owner's prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld, unless such settlement provides for the payment of money only by Stone & Webster and provides for a full, complete and unconditional release of Owner and each Qualified Entity.

(c) Stone & Webster will have no indemnity duty or obligation hereunder to the extent that (i) the Facility Documentation furnished hereunder is supplied pursuant to a design or drawing prepared by the Owner or any Qualified Entity, (ii) Facility Documentation, is modified by the Owner or any Qualified Entity to make it infringing, or (iii) the Facility Documentation is combined by the Owner or any Qualified Entity with items not furnished hereunder or recommended, approved, or authorized in writing by Stone & Webster, and as to (i), (ii) and (iii) above a suit or proceeding is brought against the Owner or any Qualified Entity solely as a result of (and no infringement would have occurred but for) said design, instruction, modification, or combination. In the event such a suit or proceeding is brought against Stone & Webster as a result of such Owner or Qualified Entity actions, Owner will indemnify and save Stone & Webster harmless to the same extent as Stone & Webster has agreed to indemnify and save Owner or any Qualified Entity harmless hereunder as provided in Section 5(a); provided that Owner will not be responsible for any settlement of any such suit or proceeding made without Owner's prior written consent, which consent shall not be unreasonably conditioned, delayed or withheld.

(d) Owner hereby releases and agrees to defend and indemnify Stone & Webster and its Subcontractors from and against any and all third party ("third party" not to include any Subcontractor, Consortium Member or other third party to whose Facility Documentation and Intellectual Property Rights therein Owner is granted a license and right under Section 2(a)) claims, demands, costs, suits, actions, proceedings, fines and penalties (and interest thereon) brought against Stone & Webster or its Subcontractors that (i) any Improvement as used by Owner or any Qualified Entity, or (ii) any use by Owner or any Qualified Entity of the Facility Documentation in a manner not contemplated by this License Agreement, results in an infringement, or claim of infringement, of any patent, trademark, copyright or other third party intellectual property right, or any other similar intellectual property protection enforceable in the United States, Canada, or a European Union country, if Owner is notified promptly in writing and given authority, information, and assistance for the defense of any such suit or proceeding.

EXCEPT AS PROVIDED ABOVE, STONE & WEBSTER MAKES NO WARRANTIES AND OWNER HEREBY WAIVES ANY CLAIM FOR LIABILITY AND ANY EXPRESS OR IMPLIED WARRANTY OF ANY KIND RELATED TO THE FACILITY DOCUMENTATION OR THIS INTELLECTUAL PROPERTY LICENSE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY OR NON-INFRINGEMENT.

OWNER MAKES NO WARRANTIES AND STONE & WEBSTER HEREBY WAIVES ANY CLAIM FOR LIABILITY AND ANY EXPRESS OR IMPLIED WARRANTY OF ANY KIND RELATED TO ANY AND ALL IMPROVEMENTS, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY OR NON-INFRINGEMENT.

THIS IS AN EXCLUSIVE STATEMENT RELATING TO FACILITY DOCUMENTATION AND THE INTELLECTUAL PROPERTY RIGHTS THEREIN AND IMPROVEMENTS RIGHTS PURSUANT TO THIS LICENSE AGREEMENT AND ALL THE REMEDIES OF THE PARTIES RELATING THERETO.

5. Proprietary Rights. (a) Except for the licenses granted herein, all rights, title and interests in and to the Facility Documentation and Intellectual Property Rights therein shall remain exclusively with Stone & Webster or it licensors.

(b) All rights title and interests in and to any new material subject to patent, trade secret, or copyright protection added to the Facility Documentation or the Intellectual Property Rights therein by or on behalf of the Owner shall be exclusively owned by the Owner. Owner hereby grants Contractor a perpetual, fully paid-up, royalty-free, non-exclusive, transferable, and assignable (as provided in Section 8 below) irrevocable and non-terminable (except for in connection with the simultaneous termination of the Agreement) right and license to use such new material added to the Facility Documentation solely in support of the Facility.

(c) To the extent there are any conflicts between any of the provisions of this License Agreement and Article 19 of the Agreement, the provisions of this License Agreement shall control.

6. Escrow of Facility Documentation. Contemporaneously with the execution and delivery of this License Agreement, Stone & Webster and Owner shall enter into an Escrow Agreement, with verification rights, by and among Stone & Webster, Owner and a third party commercial escrow agent reasonably acceptable to both Stone & Webster and Owner (the "Escrow Agreement"). Within a commercially reasonable time after entering into the Escrow Agreement and the receipt of Owner's written request, Stone & Webster shall place in escrow under the Escrow Agreement, the Facility Documentation then in existence, or, as reasonably agreed to by the parties, a detailed description and listing of the Facility Documentation then in existence (the "Escrowed Materials"). On a periodic basis thereafter, Stone & Webster shall place in escrow such additional documentation and materials that have become a part of the Facility Documentation since the last deposit into the Escrowed Materials or, as reasonably agreed to by the parties, a detailed description and listing of such additional Facility Documentation. Owner shall be entitled to receive a copy of the Escrowed Materials upon request to the Escrow Agent, without any further action by Stone & Webster, upon and at any time after the occurrence of an M-3 Triggering Event. Owner shall pay all regular costs and fees charged by the Escrow Agent (as opposed to fees and costs if any dispute arises) with respect to the above escrow and all reasonable Contractor related costs, on a Time and Material Basis, for providing and updating the deposits of Facility Documentation as provided above.

7. Bankruptcy Section 365(n). Stone & Webster acknowledges and agrees that this License Agreement creates no presumption that Stone & Webster or any trustee or other fiduciary of Stone & Webster is entitled to reject or terminate the Agreement or this License Agreement under applicable Law. Stone & Webster acknowledges that if Stone & Webster as a debtor in possession or a trustee in Bankruptcy ("Bankruptcy Trustee") in a case under the United States Bankruptcy Code rejects the Agreement or this License Agreement, Owner may elect to retain its rights under this License Agreement as provided in Section 365(n) of the United States Bankruptcy Code. Upon written request of Owner to Stone & Webster or the Bankruptcy Trustee, Stone & Webster or such Bankruptcy Trustee shall not interfere with the rights of Owner as provided in this License Agreement, including without limitation, the right to use or make available the Facility Documentation and the Intellectual Property Rights therein.

8. Assignment. Neither Party will be entitled (in whole or in part) to assign this License Agreement or its rights hereunder or to delegate or subcontract its obligations hereunder without the express written consent of the other Party hereto; provided, however, that Owner shall have the right without the consent of Stone & Webster or any third party to assign or otherwise transfer any and all of its rights under this License Agreement to any party in connection with any assignment, sale or transfer of the Facility or any Unit or of control of the Facility or a Unit. Assignment of Third Party Intellectual Property shall be governed by the terms of the applicable Third Party license. Any assignment or transfer in violation of this License Agreement will be null and void. This License Agreement and the rights and obligations of either Party hereto will be binding upon and will inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

9. Subsequent to Substantial Completion. Notwithstanding any other provision of this License Agreement, this License Agreement shall terminate upon the equivalent of Substantial Completion plus two years, and at all times subsequent to the equivalent of Substantial Completion plus two years, all Facility Documentation and Intellectual Property Rights therein provided or otherwise made available to Owner under this License Agreement, shall, subject to the exceptions contained in the definition of the term Proprietary Data, be deemed Proprietary Data (unless otherwise denoted in writing as agreed to by the parties) and Owner shall have the rights and obligations with respect thereto as set forth in Article 19 of the Agreement.

IN WITNESS WHEREOF, the Parties have duly executed this License Agreement as of the date first above written.

SOUTH CAROLINA ELECTRIC & GAS COMPANY, for itself and as agent for South Carolina Public Service Authority

By:_____
Name:_____
Title:_____

STONE & WEBSTER, INC.

By:_____
Name:_____
Title:_____

EXHIBIT N
Industry Codes And Standards

Table of Contents

AP1000 Nuclear Power Plant Codes and Standards Introduction

This document provides the listing of industry codes and standards that are applicable to the AP1000 Nuclear Power Plant design (the "Industry Codes and Standards"). The attached listing of the Industry Codes and Standards is derived from the AP1000 Design Certification Document (DCD). This list therefore is a listing of codes and standards that the AP1000 Nuclear Power Plant design is committed to by the licensing process. The revision or date of each code and standard is also included in the attached table. For codes and standards that were provided in the DCD without revision or date, the revision or date in effect, March 2002 (submittal date of the AP1000 Nuclear Power Plant design to NRC) was used. The revisions reflect the DCD licensing commitment. Changes to the standard or revision may require a licensing submittal by the Owner. Contractor will notify Owner of any proposed changes to the listing of Industry Codes and Standards to ensure that they are reflected in future licensing submittals.

Except as provided below, regarding ASME application, the edition and addenda of the ASME code applied in the design and manufacture of each component is the edition and addenda established by the requirements of the DCD. The use of editions and addenda issued subsequent to the DCD is permitted, however any change to ASME code edition will require NRC approval. In the event the DCD does not specify the edition and addenda of the code applicable to an activity required under the Agreement, the activity will be performed in compliance with the code edition and addenda required under 10 CFR 50.55a. The baseline used for the evaluations done to support this Design Control Document and the DCD is the 1998 Edition, 2000 Addenda, except as follows:

The 1989 Edition, 1989 Addenda is used for Articles NB-3200 (Design by Analysis), NB-3600, NC-3600, and ND-3600 (Piping Design) in lieu of later editions and addenda.

Guidance for ASME code year and addenda to use in mechanical equipment and valve specifications:

<u>CASE 1: ASME Section III Safety Related Equipment in Support of the Design Certification</u>

> If the principal construction code for the equipment is ASME Section III as defined in Table 3.2-3 of the DCD, then the year and addenda shall be in accordance with paragraphs 5.2.1.1 and 6.1.1 of the DCD (i.e., 1998 year with 2000 addenda), except as follows:
>
> "The 1989 Edition, 1989 Addenda is used for Articles NB-3200 (Design by Analysis), NB-3600, NC-3600, and ND-3600 (Piping Design) in lieu of later editions and addenda."

Any other ASME BP&V Code Sections listed within the equipment specification for this equipment (e.g., II, V, IX, and XI) shall have the same 1998 year and 2000 addenda.

In addition to AP1000 Nuclear Power Plant codes A, B, and C, the above applies to code D non-safety equipment being built to ASME Section III as the principal construction code defined in Table 3.2-3 of the DCD.

CASE 2: Non-ASME Section III Equipment (Non-Safety Related Equipment)

If the equipment principal construction code is ASME but NOT Section III as defined in Table 3.2-3 in the DCD (e.g., ASME Section VIII for pressure tanks/vessels), then the ASME 2001 year and 2003 addenda shall be used, unless otherwise specified in the DCD. ASME Section III will NOT be included in the specifications and standards list in the equipment specification.

If any other ASME Sections are listed within the equipment specification (e.g., ASME Section IX for welding requirements), then the 2001 year with 2003 addenda shall be used for them as well.

Additional codes and standards may be applied to the final AP1000 Nuclear Power Plant design at the sole discretion of Contractor. These additional codes and standards will then be requirements for the AP1000 Nuclear Power Plant design, however they will not be required by licensing and therefore the date and application is subject to change as determined by Contractor in its sole discretion.

The attached table, Table 1, only list industry codes and standards. Regulatory standards (Regulatory Guides, NUREGs, etc.) are not included in the attachment; these standards are referenced in the DCD.

Table 2 identifies codes and standards that are not included in the Licensing Basis but are pertinent to the Facility. Since they are not included as part of the Licensing Basis, revisions may be used as determined by Contractor in its sole discretion.

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ACI - American Concrete Institute	
ACI 117, "Standard Specification for Tolerances for Concrete Construction and Materials," 1990	3.8
ACI 211.1, "Standard Practice for Selecting Proportions for Normal, Heavy Weight, and Mass Concrete," 1991	3.8
ACI 304R, "Guide for Measuring, Mixing, Transporting, and Placing Concrete," 2000	3.8
ACI 318, "Building Code Requirements for Reinforced Concrete," 2002	2.5
ACI 349.3R, "Evaluation of Existing Nuclear Safety-Related Concrete Structures," 1996	3.8
ACI 349, "Code Requirements for Nuclear Safety Related Concrete Structures," 2001	1A, 3.8, 3H
AISC - American Institute of Steel Construction	
AISC N690, "Specification for the Design, Fabrication, and Erection of Steel Safety-Related Structures for Nuclear Facilities," 1994	3A, 3F, 3H
AISC S335, "Specification for Structural Steel Buildings, Allowable Stress Design and Plastic Design," 1989	3.3
Seismic Provisions for Structural Steel Buildings, American Institute of Steel Construction, April 1977 including Supplement 2, November 2000	3.7
AISI - American Iron and Steel Institute	
AISI, "Specification for the Design of Cold Formed Steel Structural Members," 1996 Edition and Supplement No. 1, July 30, 1999	3A, 3F
AMCA - Air Movement and Control Association, Inc.	
AMCA 210, "Laboratory Method of Testing Fans for Rotating Purposes," 1985	9.4

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
AMCA 211, "Certified Ratings Program Air Performance," 1987	9.4
AMCA 300, "Reverberant Room Method for Sound Testing of Fans," 1985	9.4
AMCA 500, "Test Method for Louvers, Dampers, and Shutters,"1989	9.4
ANS – American Nuclear Society	
ANS 5.1, "Decay Heat Power in Light Water Reactors," 1994	5.4
ANS 5.1, "Decay Heat Power in Light Water Reactor," 1979	1.9, 15.2
ANS 5.4, "American National Standard Method for Calculating the Fractional Release of Volatile Fission Products From Oxide Fuel," 1982	1A
ANS 6.1, "Guidelines on the Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants," 1989	12.3
ANS 6.4, "Guidelines on the Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants," 1997	1A, 12.3
ANS 15.8, "Nuclear Material Control Systems for Nuclear Power Plants," 1974	13
ANS 18.1, "Radioactive Source Term for Normal Operation of Light Water Reactors," 1999	1A, 11.1
ANS 51.1, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants," 1983	3.2, 3.9, 5.4, 9.3
ANS 55.6, "Liquid Radioactive Waste Processing Systems for Light Water Reactor Plants," 1993	11.2
ANS 56.2, "Containment Isolation Provisions for Fluid Systems," 1984	1A
ANS 56.11, "Design Criteria for Protection Against the Effects of Compartment Flooding in Light Water Reactor Plants," 1988	3.4
ANS 57.1, "Design Requirements for Light Water Reactor Fuel Handling Systems," 1992	9.1

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ANS 57.2, "Design Requirements for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants," 1983	4.3, 9.1
ANS 57.3, "Design Requirements for New Fuel Storage Facilities at LWR Plants," 1983	4.3
ANS 58.2, "Design Bases for Protection of Light Water Nuclear Power Plants Against Effects of Postulated Pipe Rupture," 1988	3.6
ANS 58.8, "Time Response Design Criteria for Nuclear Safety Related Operator Actions," 1984	1.9
ANS C-2, "National Electrical Safety Codes," 1997	8.2
ANSI – American National Standards Institute	
ANSI 16.1, "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors," 1975	9.1
ANSI 56.5, "PWR and BWR Containment Spray System Design Criteria," 1979	1.9
ANSI 56.8, "Containment System Leakage Testing Requirements," 1994	6.2
ANSI 58.6, "Criteria for Remote Shutdown for Light Water Reactors," 1996	7.4
ANSI B16.34, "Valves – Flanged and Buttwelding End," 1996	3.2
ANSI B16.41, "Functional Operational Requirement for Power Operated Valves," 1983	1.9
ANSI B30.2, "Overhead and Gantry Cranes," 1990	9.1
ANSI B30.9, "Slings," 1996	9.1
ANSI B31.1, "Power Piping, ASME Code for Pressure Piping," 1989	3.2, 3.6, 9.2
ANSI B96.1, "Welded Aluminum-Alloy Storage Tanks," 1981	3.2
ANSI HFS-100, "American Standard for Human Factors Engineering of Visual Display Terminal Workstations," 1988	18.8

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ANSI N14.6, "Special Lifting Devices for Shipping Containers Weighing 10,000 pounds (4500 kg) or More," 1993	3.9, 9.1
ANSI N16.1, "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors," 1975	9.1
ANSI N16.9, "Validation of Calculational Methods for Nuclear Criticality Safety," 1975	9.1
ANSI N18.2, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants," 1973	15.0
ANSI N18.2a, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants," 1975.	3.2
ANSI N101.6, "Atomic Industry Facility Design, Construction, and Operation Criteria," 1972	1A
ANSI N210, "Design Objectives for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Stations," 1976	9.1
ANSI N237, "Source Term Specification," 1976	1A
ANSI N271, "Containment Isolation Provisions for Fluid Systems," 1976	1A
ANSI N278.1, "Self-Operated and Power-Operated Safety-Relief Valves Functional Specification Standard," 1975	5.4
API – American Petroleum Institute	
API 610, "Centrifugal Pumps for General Refinery Services," 1981	3.2
API-620, "Recommended Rules for Design and Construction of Large, Welded, Low-Pressure Storage Tanks," Revision 1, April 1985.	3.2
API-650, "Welded Steel Tanks for Oil Storage," Revision 1, February 1984.	3.2

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ARI 410, "Forced Circulation Air Cooling and Air Heating Coils", 1991	9.4
ARI – Air Conditioning and Refrigeration Institute	
ARI 620, "Self-Contained Humidifiers for Residential Applications," 1996	9.4
ASCE – American Society of Civil Engineers	
ASCE 4, "Seismic Analysis of Safety-Related Nuclear Structures and Commentary," 1989	3.7
ASCE 7, "Minimum Design Loads for Buildings and Other Structures," 1998	3.7
ASCE 8, "Specification for the Design of Cold Formed Stainless Steel Structural Members," 1990	6.2
ASCE Paper No. 3269 "Wind Forces on Structures" Transactions of the American Society of Civil Engineers, Vol. 126, Part II (1961)	3
ASHRAE – American Society of Heating, Refrigeration, and Air Conditioning Engineers	
ASHRAE 33, "Methods of Testing for Rating Forced Circulation Air Cooling and Air Heating Coils," 1978	9.4
ASHRAE 52.1 "Gravimetric and Dust Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter," 1992	9.4
ASHRAE 62, "Ventilation for Acceptable Indoor Air Quality," 1999	9.4
ASHRAE 62, "Ventilation for Acceptable Indoor Air Quality," 1989	6.4

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ASHRAE 126, "Method of Testing HVAC Air Ducts," 2000	9.4
ASME – American Society of Mechanical Engineers	
ASME OM Code, "Code for Operation and Maintenance of Nuclear Power Plants," 1995 Edition, 1996 Addenda	3.9
ASME/ANSI AG-1, "Code on Nuclear Air and Gas Treatment," 1997	1A, 3.2, 3A, 9.4
ASME B16.34, "Valves – Flanged and Buttwelding End," 1996	5.4
ASME B30.2, "Overhead & Gantry Cranes," 1990	9.1
ASME B31.1, "Code for Power Piping," 1989 Edition, 1989 Addenda	5.2
ASME Boiler and Pressure Vessel Code, Section II, "Metal Specifications", 1989 Edition, 1989Addenda, (Class 1, 2, 3 Piping and Components)	5.2, 5.4
ASME Boiler and Pressure Vessel Code, Section III, Rules for Construction of Nuclear Power Plant Components, (The baseline used for the evaluations done to support this safety analysis report and the Design Certification is the 1998 Edition, 2000 Addenda, except as follows: the 1989 Edition, 1989 Addenda is used for Articles NB-3200, NB-3600, NC-3600, and ND-3600 in lieu of later editions and addenda.), (Class 1, 2, 3 Piping and Components)	3.9, 5.2, 5.3, 5.4
Code Case N-4-11, "Special Type 403 Modified Forgings or Bars, Section III, Division 1, Class 1 and Class CS"	5.2
Code Case N-20-4, "SB-163 Nickel-Chromium-Iron Tubing (Alloys 600 and 690) and Nickel-Iron-Chromium Alloy 800 at a Specified Minimum Yield Strength of 40.0 ksi and Cold Worked Alloy 800 at Yield Strength of 47.0 ksi, Section III, Division 1, Class 1"	5.2
Code Case N-60-5, "Material for Core Support Structures, Section III, Division 1"	5.2

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
Code Case N-71-18, " Additional Material for Subsection NF, Class 1, 2, 3 and MC Component Supports Fabricated by Welding, Section III Division 1"	5.2
Code Case N-122-2 "Stress Indices for Integral Structural Attachments Section III, Division 1, Class 1" 1994	5.2
Code Case N-249-14, "Additional Materials for Subsection NF, Class 1, 2, 3, and MC Supports Fabricated Without Welding, Section III, Division 1"	5.2
Code Case N-284-1, "Metal Containment Shell Buckling Design Methods, Section III, Division 1 Class MC"	5.2
Code Case N-318-5, "Procedure for Evaluation of the Design of Rectangular Cross Section Attachments on Class 2 or 3 Piping Section III, Division"	5.2
Code Case N-391-2, "Procedure for Evaluation of the Design of Hollow Circular Cross Section Welded Attachments on Class 1 Piping Section III, Division 1"	5.2
Code Case N-319-3, "Procedure for Evaluation of Stresses in Butt Welding Elbows in Class 1 Piping, Section III, Division 1"	5.2
Code Case N-392-3, "Procedure for Valuation of the Design of Hollow Circular Cross Section Welded Attachments on Class 2 and 3 Piping Section III, Division 1"	5.2
Code Case-N-474-2, "Design Stress Intensities and Yield Strength Values for UNS06690 With a Minimum Yield Strength of 35 ksi, Class 1 Components, Section III, Division 1"	5.2
ASME Boiler and Pressure Vessel Code, Section IV, "Non-destructive Examination," 1998 Edition, 2000 Addenda, (Class 1, 2, 3 Piping and Components)	5.2

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ASME Boiler and Pressure Vessel Code, Section V, "Non-destructive Examination," 1998 Edition, 2000 Addenda, (Class 1, 2, 3 Piping and Components)	5.4
ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, "Pressure Vessels," 1998 Edition, 2000 Addenda, (Class 1, 2, 3 Piping and Components)	5.2, 9.3
ASME Boiler and Pressure Vessel Code, Section IX, "Welding and Brazing Qualifications," 1998 Edition, 2000 Addenda, (Class 1, 2, 3 Piping and Components)	5.2
Code Case 2142-1, "F-Number Grouping for Ni-Cr-Fe, Classification UNS N06052 Filler Metal, Section IX"	5.2
Code Case 2143-1, "F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 Welding Electrode, Section IX"	5.2
ASME Code Section XI (1998 Edition) and mandatory appendices. (Design provisions, in accordance with Section XI, Article IWA-1500, are incorporated in the design processes for Class 1 components.) , (Class 1, 2, 3 Piping and Components)	3.9, 5.2, 5.4
ASME Code Section XI (1996 Edition) Appendix G	5.3
ASME N509 (R1996), "Nuclear Power Plant Air Cleaning Units and Components," 1989	1A, 3A, 9.4
ASME N510, "Testing of Nuclear Air Cleaning Systems," 1989	1A, 9.4
ASME NOG-1, "Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder)," ASME Code, Section IV, Pt. HWL, 1998.	9.1
ASME NQA-1, "Quality Management System," 1989 edition through NQA-1b-1991, Addenda (DCD identifies NQA-1 1b 1991 Addenda, however NRC has accepted NQA-1 through NQA-1c-1992, Addenda as acceptable via Reg Guide 1.28. NQA-1-1c-1992 is to be specified to be consistent with the ASME Section III Code and Addenda specified in the DCD.)	17.0

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ASME Performance Test Code 19.11, 1970	10.4
ASTM – American Society of Testing and Materials	
ASTM A 580, "Specification for Stainless and Heat-resisting Steel Wire," 1990	4.2
ASTM A 609, "Standard Specification for Longitudinal Beam Ultrasonic Inspection of Carbon and Low Alloy Steel Castings," 1991	
ASTM A 615, "Deformed and Plain Billet Steel Bars for Concrete Reinforcement," 2001	3.8
ASTM A 706, "Low Alloy Steel Deformed Bars for Concrete Reinforcement," 2001	3.8
ASTM A 970, "Specification for Welded Headed Bars for Concrete Reinforcement," 1998	3.8
ASTM C 33, "Specification for Concrete Aggregates," 2002	3.8
ASTM C 94, "Specifications for Ready-Mixed Concrete," 2000	3.8
ASTM C 131, "Resistance to Abrasion of Small Size Coarse Aggregate by Use of the Los Angeles Machine," 2001	3.8
ASTM C 150, "Specification for Portland Cement," 2002	3.8
ASTM C 260, "Air Entraining Admixtures for Concrete," 2001	3.8
ASTM C 311, "Sampling and Testing Fly Ash or Natural Pozzolans for Use as Mineral Admixture in Portland Cement Concrete," 2002	3.8
ASTM C 494, "Chemical Admixtures for Concrete," 1999	3.8
ASTM C 535, "Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine," 2001	3.8
ASTM C 618, "Fly Ash and Raw or Calcined Natural Pozzolans for Use in Portland Cement Concrete," 2001	3.8

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
ASTM D 512, "Chloride Ion in Industrial Water," 1999	3.8
ASTM D 1888, "Particulate and Dissolved Matter in Industrial Water."	3.8
ASTM E 142, "Methods for Controlling Quality of Radiographic Testing," 1986	4.2
ASTM E 165, "Practice for Liquid Penetrant Inspection Method," 1995	5.4
ASTM E 185, "Standard Practice for Conducting Surveillance Tests for Light-Water Cooled Nuclear Power Reactor Vessels," 1982	5.3
ASTM E 741, "Standard Test Methods for Determining Air Change in a Single Zone by Means of a Tracer Gas Dilution," 2000	6.4, 9.4
AWWA – American Water Works Association	
AWWA D100, "Welded Steel Tanks for Water Storage," 1984	3.2
AWS – American Welding Society	
AWS D1.1 Structural Welding Code – 2000 - Steel Covers the design, welding and examination of welded structural steel 1/8" and thicker. It allows for both pre-qualified and non prequalified welding procedures. AWS D 1.4-98 Reinforcing Steel Welding Code,	3.8.3.2
CMAA – Crane Manufacturers Association of America	
CMAA Specifications, "Specification for Electric Overhead Traveling Cranes," 1999	9.1

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
FEMA – Federal Emergency Management Agency	
FEMA 356, "Prestandard and Commentary for the Seismic Rehabilitation of Buildings," 2000	3.7
IEEE – Institute of Electrical and Electronics Engineers	
IEEE Standard 7-4.3.2, "IEEE Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations," 1993	1A, 7.1
IEEE Standard 98, "IEEE Standard for the Preparation of Test Procedures for the Thermal Evaluation of Solid Electrical Insulating Materials," 1984	3D
IEEE Standard 100, "IEEE Standard Dictionary of Electrical and Electronic Terms," 1996	3D
IEEE Standard 141, "IEEE Recommended Practice for Electric Power Distribution for Industrial Plants," (IEEE Red Book), 1993	8.3
IEEE Standard 242, "IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems" (IEEE Buff Book), 1986	8.3
IEEE Standard 279, "IEEE Standard Criteria for Protection Systems for Nuclear Power Generating Stations," 1971	1A
IEEE Standard 281, "IEEE Standard Service Conditions for Power System Communication Equipment," 1984	9.5
IEEE Standard 308, "IEEE Standard Criteria for Class 1E Power Systems for Nuclear Power Generating Stations," 1991	1A, 8.1, 8.3
IEEE Standard 317, "IEEE Standard for Electric Penetrations Assemblies in Containment Structures for Nuclear Power Generating Stations," 1983	1.9, 1A, 8.1, 8.3
IEEE Standard 323, "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations," 1974	1.9, 1A, 3.2, 8.1

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
IEEE Standard 338, "IEEE Standard Criteria for the Periodic Surveillance Testing of Nuclear Power Generating Stations Safety Systems," 1987	1.9, 1A, 8.1
IEEE Standard 344, "IEEE Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations," 1987	3.2, 3F, 8.1
IEEE Standard 379, "IEEE Standard Application of the Single-Failure Criterion to Nuclear Power Generating Station Safety Systems," 2000	1A, 8.1
IEEE Standard 381, "IEEE Standard Criteria for Type Test of Class 1E Modules used in Nuclear Power Generating Stations," 1977	3D
IEEE Standard 382, "IEEE Standard for Qualification of Actuators for Power-Operated Valve Assemblies with Safety-Related Functions for Nuclear Power Plants," 1996	1A, 8.1
IEEE Standard 383, "IEEE Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations," 1974	8.1, 9.5
IEEE Standard 384, "IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits," 1981	1A, 1.9, 8.1, 8.3
IEEE Standard 420, "IEEE Standard for the Design and Qualification of Class 1E Control Boards, Panels, and Racks Used in Nuclear Power Generating Stations," 1982	7.1
IEEE Standard 422, "Guide for the Design and Installation of Cable Systems in Power Generating Stations," 1986	8.3
IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications," 1995	8.1, 8.3
IEEE Standard 484, "IEEE Recommended Practice for Installation Design and Installation of Vented Lead-Acid Batteries for Stationary Applications," 1996	1A, 8.1

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
IEEE Standard 485, "IEEE Recommended Practice for Sizing Lead-Acid Batteries for Stationary Applications," 1997	8.3
IEEE Standard 494, "IEEE Standard Method for Identification of Documents Related to Class 1E Equipment and Systems for Nuclear Power Generating Stations," 1974	3D
IEEE Standard 535, "IEEE Standard for Qualification of Class 1E Lead Storage Batteries for Nuclear Power Generating Stations," 1986	1A
IEEE Standard 572, "IEEE Standard for Qualification of Class 1E Connection Assemblies for Nuclear Power Generating Stations," 1985	3D
IEEE Standard 603, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," 1991	1A, 7.1
IEEE Standard 627, "IEEE Standard for Design Qualification of Safety System Equipment Used in Nuclear Power Generating Stations," 1980	7.1
IEEE Standard 649, "IEEE Standard for Qualifying Class 1E Motor Control Centers for Nuclear Power Generating Stations," 1991	3D
IEEE Standard 650, "IEEE Standard for Qualification of Class 1E Static Battery Chargers and Inverters for Nuclear Power Generating Stations," 1990	3D
IEEE Standard 665, "IEEE Guide for Generating Station Grounding," 1995	8.3
IEEE Standard 741, "IEEE Standard Criteria for the Protection of Class 1E Power Systems and Equipment in Nuclear Power Generating Stations," 1997	1A, 8.1, 8.3
IEEE Standard 828, "IEEE Standard for Software Configuration Management Plans," 1990	7.1
IEEE Standard 829, "IEEE Standard for Software Test Configuration," 1983	7.1

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
IEEE Standard 830, "Recommended Practice for Software Requirements Specifications," 1993	7.1
IEEE Standard 946, "IEEE Recommended Practice for the Design of DC Auxiliary Power Systems for Generating Stations," 1992	8.3
IEEE Standard 1012, "IEEE Standard for Software Verification and Validation Plans," 1986	7.1
IEEE Std 1023-2004, "IEEE Recommended Practice for the Application of Human Factors Engineering to Systems, Equipment and Facilities of Nuclear Power Generating Stations and Other Nuclear Facilities."	18.8
IEEE Standard 1028, "IEEE Standard for Software Reviews and Audits," 1988	7.1
IEEE Standard 1042, "IEEE Guide to Software Configuration Management," 1987	7.1
IEEE Standard 1050, "IEEE Guide for Instrumentation and Control Equipment Grounding in Generating Stations," 1996	8.3, 7.1
IEEE Standard 1074, "Standard for Developing Software Life Cycle Processes," 1995	7.1
IEEE Standard 1202, "IEEE Standard for Flame Testing of Cables for Use in Cable Tray in Industrial and Commercial Occupancies," 1991	8.1, 1A, 9.5
IEEE Std 1289-1998, "IEEE Guide for the Application of Human Factors Engineering in the Design of Computer-Based Monitoring and Control Displays for Nuclear Power Generating Stations."	18.8
IEEE Standard C37.98, "IEEE Standard for Seismic Testing of Relays," 1987	3D
ISA – Instrumentation, Systems and Automation Society	
ISA S7.3, "Quality Standard for Instrument Air," 1981	9.3

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
MIL – Military Standards and Specifications	
MIL-HDBK-759C, "Human Engineering Design Guidelines," 1995	6.4
MIL-STD 1472E, "Human Engineering," 1996	6.4
NEMA – National Electrical Manufacturers Association	
NEMA MG-1, "Motors and Generators," Revision 1, 1998	3.2
NEMA Standard Publication No. VE 1-1998, Metallic Cable Tray Systems	3F
NFPA – National Fire Protection Association	
NFPA 10, "Standard for Portable Fire Extinguishers," 1998	9.5
NFPA 13, "Standard for the Installation of Sprinkler Systems," 1999	9.5
NFPA 14, "Standard for Installation of Standpipe, Private Hydrants, and Hose Systems," 2000	9.5
NFPA 15, "Standard for Water Spray Fixed Systems for Fire Protection," 2001	9.5
NFPA 20, "Standard for the Installation of Stationary Pumps for Fire Protection," 1999	9.5
NFPA 22, "Standard for Water Tanks for Private Fire Protection," 1998	9.5
NFPA 24, "Standard for Installation of Private Fire Service Mains and Fire Protection," 1995	9.5
NFPA 30, "Flammable and Combustible Liquids Code," 2000	9.5
NFPA 50A, "Standard for Gaseous Hydrogen Systems at Consumer Sites," 1999	9.5

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
NFPA 50B, "Standard for Liquefied Hydrogen Systems at Consumer Sites," 1999	9.5
NFPA 70, "National Electrical Code (NEC)," 1999	8.3, 9.5
NFPA 72, "National Fire Alarm Code," 1999	9.5
NFPA 90A, "Installation of Air-Conditioning and Ventilation Systems," 1999	9.4
NFPA 92A, "Recommended Practice for Smoke Control Systems," 2000	9.4, 9A
NFPA 780, "Standard for the Installation of Lighting Protection Systems," 2000	8.3, 9.5
NFPA 804, "Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants," 2001	9.5
SMACNA – Sheet Metal and Air Conditioning Contractors National Association	
SMACNA, "HVAC Duct Construction Standards - Metal and Flexible," Second Edition 1995	3A, 9.4
SMACNA, "HVAC Systems – Testing, Adjusting, and Balancing," 1993	9.4
SMACNA, "Rectangular Industrial Duct Construction Standards," 1980	9.4
SMACNA, "HVAC Duct Construction Standards - Metal and Flexible," 1985	3.2
SMACNA, "Round Industrial Duct Construction Standard," 1999	9.4
SMACNA, "HVAC Duct Leakage Test Manual," 1985	9.4
UBC – Uniform Building Code	
UBC, "Uniform Building Code," 1997	3.2

Table 1
AP1000 Codes and Standards (Licensing Basis)

Title	DCD Section
UL – Underwriters Laboratories, Inc.	
UL 555, "Safety Fire Dampers," 1999	9.4
UL 555S, "Leakage Rated Dampers for Use in Smoke Control Systems," 1999	9.4
UL 586, "High-Efficiency, Particulate, Air-Filter Units," 1996	9.4
UL 900, "Test Performance of Air-Filter Unit," 1994	9.4
UL 1995, "Heating and Cooling Equipment," 1995	9.4
UL 1996, "Electric Duct Heating," 1996	9.4

Table 2
AP1000 Codes and Standards (not found in Licensing Basis)

Title	Reference
ASME NQA-2 Quality Assurance Requirements for Nuclear Power Plants 1989 Edition, through NQA-1c-1992, Addenda	None
American Society for Nondestructive Testing SNT-TC-1A, "Recommended Practice for Non-Destructive Testing 1992 Edition.	None
CP-189 Qualification and Certification of Nondestructive Testing Personnel 1995 Edition	None

EXHIBIT O-1
Proprietary Data Agreement

For and in consideration of the disclosure by [ ] (hereinafter referred to as "OWNER") to _____ (said person hereinafter referred to as "RECIPIENT") of information in oral, written or physical form, including information of Westinghouse Electric Company, LLC and Stone & Webster, Inc. (hereinafter referred to as "CONTRACTOR"), CONTRACTOR being expressly recognized as third party beneficiary(ies) to this Agreement, and information of OWNER relating to AP1000 systems, components or structures considered to be proprietary and treated as secret and confidential, RECIPIENT, to the extent that RECIPIENT is authorized to use such proprietary information, enters into this "Agreement" and accepts and receives such proprietary information (hereinafter referred to as "Information") in confidence and trust, subject to the following terms and conditions:

1. RECIPIENT shall maintain the confidentiality of all Information disclosed to it hereunder, and shall not use such Information unless such use is solely for the purpose of the AP1000 Nuclear Power Plant(s) and related facilities, structures and improvements (the "Facility") (and associated simulator), in connection with, design, construction and installation of the Facility, simulator and ancillary facilities, trouble-shooting, response to plant events, inspection, evaluation of system or component performance, scheduling, investigations, initial fuel loading, refueling, operation, management, procurement, maintenance, testing, training, repair, licensing, modification, decommissioning, ensuring the safety of the Facility, simulator and ancillary facilities, and compliance with laws or government authorities (collectively, the "Facility Purposes").

2. RECIPIENT shall maintain all such Information so imparted, secret and confidential.

3. RECIPIENT shall not use such Information for any purpose except as permitted by OWNER in accordance with paragraph 1 above.

4. RECIPIENT shall not disclose such Information to its members, officers, employees, or counsel except on a need-to-know basis with each such person receiving such Information being notified of and required to abide by the terms and conditions of this Agreement. RECIPIENT shall not transmit or further disclose such Information to any third party, including parent organizations of RECIPIENT, sister organizations of RECIPIENT, subsidiaries of RECIPIENT, consultants of RECIPIENT or subcontractors of RECIPIENT, without first obtaining the prior written approval of OWNER. In the event OWNER approves of such disclosure or transmittal, such third party shall execute an appropriate non-disclosure, licensing or similar agreement either with or as agreed to by OWNER.

5. In the event that the RECIPIENT or any of its representatives are requested or required in any proceeding or by any governmental authority to disclose any of the

Information, the RECIPIENT shall provide the OWNER with prompt written notice of such request or requirement so that the OWNER may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement. If, in the absence of a protective order or other remedy or the receipt of a waiver from the OWNER, the RECIPIENT or any of its representatives are nonetheless, in the written opinion of their counsel, legally compelled to disclose Information, it or its representatives may, without liability hereunder, disclose only that portion of the Information which such counsel advises the RECIPIENT is legally required to be disclosed, provided that the RECIPIENT exercises its best efforts to preserve the confidentiality of the Information, including, without limitation, by cooperating with the OWNER to obtain an appropriate protective order or other reliable assurance that confidential treatment will be accorded the Information.

6. Except where necessary or appropriate for Facility Purposes, RECIPIENT shall not make any copy or in any way reproduce or excerpt such Information except as authorized by OWNER in writing prior to such reproduction or excerption. Any such copies or excerpts shall include proprietary notice. Upon the written request of OWNER, the Information provided hereunder and any such copies or excerpts thereof shall be returned to OWNER, or, at the sole option and request of OWNER, RECIPIENT shall destroy such information and any such copies and/or excerpts and certify in writing to OWNER that such Information has in fact been destroyed.

7. Nothing in this Agreement shall apply to any information which is:

a) now generally known or readily available to the trade or public or which becomes so known or readily available without fault of RECIPIENT; or
b) rightfully possessed by RECIPIENT without restriction prior to its disclosure hereunder by OWNER; or
c) acquired from a third party without restriction, provided that RECIPIENT does not know, or have reason to know, or is not informed subsequent to disclosure by such third party and prior to disclosure by RECIPIENT that such information was acquired under an obligation of confidentiality; or
d) information that RECIPIENT can show by suitable evidence to have been independently developed by RECIPIENT or its employees, consultants, affiliates or agents; or
e) legally required to be disclosed; provided that RECIPIENT uses its reasonable best efforts to notify Owner of any request or subpoena for the production of any such information and provides Owner with an opportunity to resist such a request or subpoena.

8. It is mutually understood that, except as expressly granted in this Agreement, nothing herein shall be construed as granting or implying any right under any letters patent, or to use any Information claimed therein, or as permitting RECIPIENT to unfairly obtain the right to use Information which becomes publicly known through an improper act or omission on its part. Furthermore, it is mutually understood that each CONTRACTOR is a third party beneficiary to this Agreement.

9. OWNER and CONTRACTOR make no warranty or representation whatsoever as to the sufficiency or accuracy of the Information provided hereunder, the ability of RECIPIENT to use the Information for its intended purpose, or as to the result to be obtained therefrom.

10. Neither OWNER, CONTRACTOR nor their suppliers or subcontractors of any tier shall be liable with respect to or resulting from the use (or the results of such use) or misuse of any Information furnished to the RECIPIENT hereunder, and RECIPIENT shall be exclusively responsible for any such use or misuse of any Information furnished hereunder or resulting therefrom.

11. Nothing in this Agreement shall obligate OWNER or CONTRACTOR to provide any specific information that it otherwise desires to withhold.

12. RECIPIENT shall not, at any time, without the prior written approval of OWNER and CONTRACTOR, file, cause or authorize the filing of any patent application in any country in respect of any invention derived from the Information supplied hereunder.

13. RECIPIENT will not export any Information received from OWNER, or any product of such Information, directly or indirectly, without the prior written permission of OWNER, to any of the countries designated in the United States Government regulations as issued from time to time relating to the exportation of technical data, including any computer programs. RECIPIENT agrees to fully comply with all regulations with regard to the export of the Information transmitted hereunder.

14. RECIPIENT shall not assign this Agreement except with the prior written consent of OWNER.

15. This Agreement shall be governed in accordance with the laws of the State of New York, without application of its conflict of law rules except Section 5-1401 of the New York General Obligations Law. The Parties agree to the exclusive jurisdiction of the United States District Court for the Southern District of New York or the New York state courts in the City of New York for any legal proceedings that may be brought by a Party arising out of or in connection with this Agreement or for recognition or enforcement of any judgment. By execution and delivery of this Agreement, each Party accepts, generally and unconditionally, the jurisdiction of the aforesaid courts for legal proceedings arising out of or in connection with this Agreement. Each Party hereby waives any right to stay or dismiss any action or proceeding under or in connection with this Agreement brought before the foregoing courts on the basis of forum non-conveniens or improper venue.

16. This Agreement shall be binding upon RECIPIENT and its successors and shall benefit and be enforceable by OWNER, CONTRACTOR and each of their respective successors and assigns.

17. This Agreement shall be effective for a period commencing on the date this Agreement is executed by the parties and ending five (5) years after RECIPIENT ceases to provide services with respect to the Facility, except RECIPIENT'S confidentiality obligations survive.

18. If any of the terms of this Agreement are violated by RECIPIENT, OWNER shall be entitled to an injunction to be issued by any court of competent jurisdiction, enjoining and restraining the RECIPIENT, as well as damages and any costs of collection, including but not limited to attorneys' and other professionals' fees and related charges and interest.

19. If any provision of this Agreement is held invalid in any respect, it shall not affect the validity of any other provision of this Agreement. If any provision of this Agreement is held to be unreasonable as to the time, scope or otherwise, it shall be construed by limiting and reducing it so as to be enforceable under then applicable law.

20. This Agreement constitutes the entire, sole and exclusive agreement of the Parties concerning each Party's obligations of confidentiality with respect to the Information of the other Party. No modification of this Agreement or waiver of any of its terms will be effective unless set forth in a writing signed by the Party against whom it is sought to be enforced.

AGREED to this ____ day of _____, 200_.

[OWNER'S FULL NAME]
BY: _____
NAME: _____
TITLE: _____

[RECIPIENT'S FULL NAME]
BY: _____
NAME: _____
TITLE: _____

Exhibit O-2
List of Intellectual Property Subject to Third Party License Terms[1]

Description of Intellectual Property	Third Party Supplier
Protection and Safety Monitoring System (PMS) Platform Software	ABB Process Automation Corporation
QNX Photon Development Software for PMS	QNX Software Systems
QNX Photon Run-Time Software for PMS	QNX Software Systems
Plant Control System (PLS) Platform Software (Ovation®)	Emerson Process Management
Main Turbine Control and Diagnostic System (TOS) Platform Software	Emerson Process Management
VxWorks Controller Operating System for PLS and TOS	Wind River Systems, Inc.
Data Display and Processing System (DDS) Platform Software	Microsoft Corporation, Emerson Process Management, Symantec, Oracle Corporation, others
Labview Run-Time Software for Special Monitoring System (SMS)	National Instruments
Fast Ethernet Drivers	Emerson Process Management
Crystal Reports for DDS	Business Objects
Ultra Bac Tape Backup Software for SMS	UltraBac Software (BEI Corp)
Roxio Easy Media Creator for SMS	Roxio
RealVNC Enterprise for SMS	RealVNC Enterprise
Simulator System (STS) Platform Software	Emerson Process Management, ABB Process Automation Corporation, Microsoft Corporatioin, GSE Systems, and others
Intouch™ development system; Software for Refueling Machine and Spent Fuel Handling Machine	WonderWare
Proficy Machine Addition; Software for Refueling Machine, Spent Fuel Handling Machine, Transfer Machine and New Fuel Elevator	GE Fanuc
Windows® Operating System, Excel Spreadsheet; Software for Refueling Machine, Spent Fuel Handling Machine, Transfer Machine and New Fuel Elevator	Microsoft Corporation
Norton System works 2005 Premier; Software for Refueling Machine, Spent Fuel Handling Machine, Transfer Machine and New Fuel Elevator	Symantec

[1] This Exhibit is subject to revision, as provided in Section 19.3(d) of the Agreement.

EXHIBIT P-1
AP1000 –Major Subcontractors / Suppliers

Approved Supplier	Potential Components / Services to be Supplied
ABB Ltd	I&C equipment
Airtech Inc.	Gas packages
Ansaldo Camozzi	S/G, RV and Head, Containment Air Baffle, modules, tanks, PZR, Rx coolant piping, containment vessel
Aquatech International Corporation	Electrodeionization Units
Caterpillar Inc.	Diesel Generators
Chicago Bridge & Iron Company	Containment Vessel, Containment Air Baffle, PZR, Containment Erection
Control Components, Inc.	Valves
Copes Vulcan	Valves
Crane Nuclear, Inc.	Valves
Curtiss-Wright – Electro-Mechanical Corporation (EMD)	Reactor Coolant Pumps, CRDMS, BOP Pumps
Doosan Heavy Industries & Construction Company	S/G, RV and Head, Rx Internals, PZR, Rx coolant piping
Dresser, Inc.	Valves
Electric Boat Corporation	Modules
Emerson Process Management	I&C equipment
Emerson Process Management Fisher Control Valves	Valves
Emerson Process Management Rosemount	Instrumentation
EnerSys Inc.	Batteries, Battery chargers
ENSA – Equipos Nucleares, S.A.	S/G, RV and Head, PZR
Flowserve Corporation	Valves, BOP Pumps
GEC Alsthom	Breakers
General Dynamics - Electric Boat	Modules
Gutor Electronic Ltd	Batteries, Battery chargers
IHI Corporation	Make-up tanks, Accumulator Tanks
Ingersoll-Dresser Pump Company	Pumps
IST Conax Corporation	Squib valves, containment electrical penetrations
IST Corporation	Incore Instruments
Joseph Oats	Containment Air Baffle, PZR
KSB Aktiengeselischaft	Various pumps
Major Tool & Machine, Inc	Rx Internals
Mitsubishi Heavy Industries	RHR pumps

Approved Supplier	Potential Components / Services to be Supplied
Northrop Grumman Newport News	Modules, Containment Vessel
Nuclear Logistics, Inc.	Batteries, Battery chargers
PaR Nuclear	Refueling Equipment, Polar Crane, other cranes
Parker Hannifin Corporation	Valves
Penn Iron Works	Reactor Integrated Head Package Components
Penn State Tool & Die	Reactor Integrated Head Package Components
Precision Custom Components	Rx Internals components
Siemens Corporation	Variable Frequency Drive Unit for RCPs
Sempell AG	Valves
SPX Cooling Technologies, Inc. (Marley)	Cooling towers
SPX Copes Vulcan Corporation	Valves
SSM	Containment Air Baffle
Swagelok Company	Valves
Target Rock Corporation	Valves
The Shaw Group, Inc	Piping (Supplier), Modules
The Weir Group PLC	Valves, BOP Pumps
Tioga Pipe Supply Company	Rx coolant piping
Toshiba Corporation	Turbine Generator, Electrical distribution, heavy components
Transco Products, inc.	Reflective Insulation
Tyco Flow Control	Valves
Union Pump Company	BOP Pumps
Velan Valve Corporation	Valves
Weed Instrument Co., Inc.	Instrumentation
WESCO – Westinghouse Electric Supply Co.	Transformers, load centers, switchgear
Westinghouse Electric, LLC	Rx Internals, CRDMs
Xomox Corporation	Valves
Zurn Company (Wilkins)	Cooling Tower

EXHIBIT P-2
Subcontractors For
Site Construction And Related Field Services

WORK SCOPE	POTENTIAL SUBCONTRACTORS
Grubbing and Site Clearing	Local contractor (TBD) Chandler Construction Morgan LANE Construction, Meriden, CT
Excavation and Backfill	Kiewit Federal Higgerson – Buchanan, Inc. Morgan
Surveying Control & Support	Chas. H. Sells, Inc. ENGlobal Engineering, Inc Meridian Associates, Inc. Mulkey, Inc Walbridge RB, LLC Glenn Associates
Grading & Paving	Earndardt Grading Inc Granite Contracting Morgan, Inc Saiia, LLC Banks Construction Sanders Brothers Construction
Railroad Trackwork	Queen City Railroad Construction Ragnar Benson, Inc. Hinkle Contracting Corporation Lane Construction Corporation Rhinehart Railroad Construction, Inc. R. D. Harrison. Inc Yount Construction Company Brason Trackworks
Major Lifts and Rigging	Bigge Crane and Rigging Co. Burkhalter Rigging, Inc Deep South Crane and Rigging Co Emmert International Hake Rigging Company, a division of Barnhart NE Mammoet International Marino Crane Sanders Bros., Inc American

WORK SCOPE	POTENTIAL SUBCONTRACTORS
Pre-Engineered Buildings (Offices, Shops, Warehouses)	AME, Inc. Bar Construction Carolina Metal Buildings Edison Foard, Inc. Crowder Laxton Construction Hightower Construction Hall Contracting Corp.
Soils & Concrete Testing Services	Froehling Robertson Inc MACTECH Engineering and Consulting, Inc. Professional Services Industries, Inc. S and ME, Inc Schnabel Engineering South, LLC
Specialty Machining & Welding	Wachs Welding Services WSI Welding TrI-Tool PCI subsidiary of WEC
Caissons/Pilings (if applicable)	Morris Shea Bridge Co. Balfour Beatty Construction Co. Coastal Caisson Boh Brothers Construction Palmetto Pile Driving Parker Marine
Field Erected Tanks	Bowen Engineering Corporation Enerfab, Inc. Erected Steel Products of Alabama, Inc. Fisher Tank Company Frank Lill & Son, Inc. Gallagher Kaiser Company RECO Constructors Sanders Bros., Inc Tate Metalworks, Inc USA Tank Sales and Erection Company, Inc. PDM. Woodlands, TX CBI, Woodlands, TX
HVAC (Furnish & Install)	McKinney Mechanical Services
Underground Utilities	Hall Contracting
Transformers/Switchyard	Shaw E&I
Cooling Tower	Marley Zurn